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ABSTRACT

Designed as a resource manual for use in conjunction with state and/or local level career education staff development training sessions, this handbook also provides local practitioners with information to develop new or improved career education programs. Chapter 1 overviews the concept, rationale, goals, and objectives of career education in Massachusetts. The next six chapters cover topics chosen on the basis of results of a needs assessment. Each chapter includes an introduction, examples of successful implementation strategies, and sources for reference materials and may be used separately from the others. Topic areas (with other information discussed) are career education program planning and implementation (career education as an educational change process), getting staff involved and designing inservice training programs (promoting career education, developing support groups, models for inservice training), curriculum infusion, community resource utilization (developing a resource directory, in-house teaching strategies, community-based teaching strategies), career education and special needs students (mainstreaming, teacher collaboration, Individual Education Plans), and evaluating career education programs (examples of evaluation instruments, techniques, and procedures). A list of career development concepts is appended. (YLB)

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A MASSACHUSETTS CAREER EDUCATION STAFF DEVELOPMENT RESEARCH GUIDE

Prepared for:

The Massachusetts
State Department of Education
Division of Occupational Education
Boston, Massachusetts

by

The Institute for Governmental Services
University of Massachusetts

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- Project Staff

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CHAPTER I

MASSACHUSETTS CAREER EDUCATION TODAY AND TOMORROW

The Massachusetts Career Education Staff Development Resource Guide

The primary purpose of this handbook is to provide resource material for those of you involved in staff development training for career education. A secondary purpose is to provide information for those of you who are local practitioners possibly wishing to develop new or improved career education programs. While schools will continue to be encouraged to formulate their own approaches, based on local conditions, toward implementing career education, planners felt it would be helpful to provide you with some general guidelines and specific resources.

The Massachusetts Career Education Staff Development Resource Guide (MCESD) was designed for this purpose. MCESD is a self-help guide aimed at providing school districts with information and resources to help you who are members of training staffs to upgrade student career development skills.

The following sections provide you with an overview of the concept, rationale, goals and objectives of career education in Massachusetts. This information provides the basis for the activities and strategies outlined in the guide.

Introduction

Career education has come to Massachusetts. School districts throughout the state have begun implementing a variety of activities related to career education. Career resource centers are operating and expanding. Career guidance activities at the secondary level are being improved. Teachers at all grade levels are infusing career education concepts into their daily lesson plans. Business/industry and labor are collaborating with local school systems to provide a range of on-site career-related experiences for students. School systems, professional organizations and civic groups are sponsoring career education training programs for teachers, counselors and administrators. A state plan has been completed and is being implemented.

Brief History of Career Education in Massachusetts

HISTORY OF
CAREER EDUCATION
IN MASSACHUSETTS

While many of these specific career education efforts have occurred recently, related activities have been promoted in the commonwealth for a number of years. In 1971 the Massachusetts State Board of Education in its statewide plan states one of its educational goals:

> *Education should provide the learners with the skills, experience, attitudes, and guidance for initial job placement; it is equally important for the learner to develop a capacity to adapt to changing conditions.*

In 1976 the State Policy for Occupational Education included in its definition of occupational education:

- helping students in elementary school acquire an awareness of the world of work;
- helping students in middle or junior high school explore many different occupations; and
- helping students in high school acquire basic employability skills.

In 1978 the State Board of Education adopted a policy for guidance and counseling that re-emphasized the need for providing career awareness experiences as early as the elementary school level. This policy states "that educational and career counseling should be done incrementally...at each school level many activities should exist to widen the student knowledge of careers and post-secondary education."

Also in 1978 the state adopted a comprehensive state plan for career education. This plan tied together the various strands of educational goals, occupational education and guidance policies to create and advocate a comprehensive approach to integrating career-related educational experiences into the total school program for all students. Through this state plan Massachusetts made a commitment to assist with the implementation of comprehensive career education programs throughout the state.

While many schools and school systems had already undertaken the implementation of various facets of career education, the state plan provided further impetus by laying out student goals and objectives for each grade level and thus providing a common basis for defining student outcomes. Financial assistance also became available through funds from the P.L. 94-205, the Career Education Incentive Act. As a result of this funding a number of school districts have developed curriculum, trained teachers, and hired career education personnel.

The Massachusetts Career Education Leadership Projects

Another outcome of the Career Education Incentive Act was the funding of the Massachusetts Career Education Leadership Project. The goal of this project was to increase the knowledge and awareness of school and State Department of Education personnel concerning the theory and implementation strategies for career education. A major portion of this leadership project has been oriented towards staff development. Workshops for over 400 school personnel were held, descriptive career education brochures developed, a bi-monthly newsletter published and -- as a final project -- this handbook has been developed for your use.

Massachusetts Concept of Career Education

Career education in Massachusetts is defined in the state plan as "an effort aimed at refocusing education and the actions of the broader community in ways that will help individuals acquire and utilize the knowledge, skills and attitudes necessary for each to make work a meaningful, productive and satisfying part of his or her way of living."

CAREER EDUCATION AND WORK

This means that career education represents a comprehensive approach to attaining one of education's most important goals -- preparation for work.

The main thrust of career education is to provide all students with the skills and attitudes necessary for adapting to change when they leave school and enter the world of work. These skills and attitudes include:

SELF AWARENESS	Who am I? What are my likes, strengths and weaknesses?
EDUCATIONAL AWARENESS	What education/preparation/training does a job require?
CAREER AWARENESS	Which occupational options are available? What are they like?
ECONOMIC AWARENESS	How will my career affect how I live? What I can buy? Where I live? etc.
DECISION-MAKING	How will my decisions regarding education/training/job choice affect my life?
BEGINNING COMPETENCIES	What basic skills can assist me in developing a career path?

EMPLOYABILITY SKILLS	What social and communication skills will help me to keep a job? Which must I develop?
ATTITUDES & APPRECIATIONS	What responsibilities do I have as an employee?

Career Education will enhance all of the basic goals of education by adding a new dimension of relevance to current academic disciplines. Most importantly, when career education is implemented, nothing need be deleted from current programs. Career education contains additive, not subtractive factors.

CHARACTERISTICS
OF
IMPLEMENTATION

Basic to the career education concept is that implementation involves a comprehensive, sequential, developmental, infused approach. Comprehensive means career education is provided for all students at all grade levels. Sequential and developmental mean that career education skills, knowledge and attitudes are taught in a sequenced continuum based on the maturation level of students. Thus, each career education concept is introduced at one grade level, developed at another, and emphasized at yet another. Finally, infused means that career education concepts are taught within current academic disciplines. Career education should not be a separate course or program, but rather it becomes a part of all subject matter. See Figure 1.1 for a model of a comprehensive, developmental, sequential career education program.

Differences Among Career Education, Vocational Education and Occupational Education

Many individuals have difficulty understanding the differences among career, vocational and occupational education.

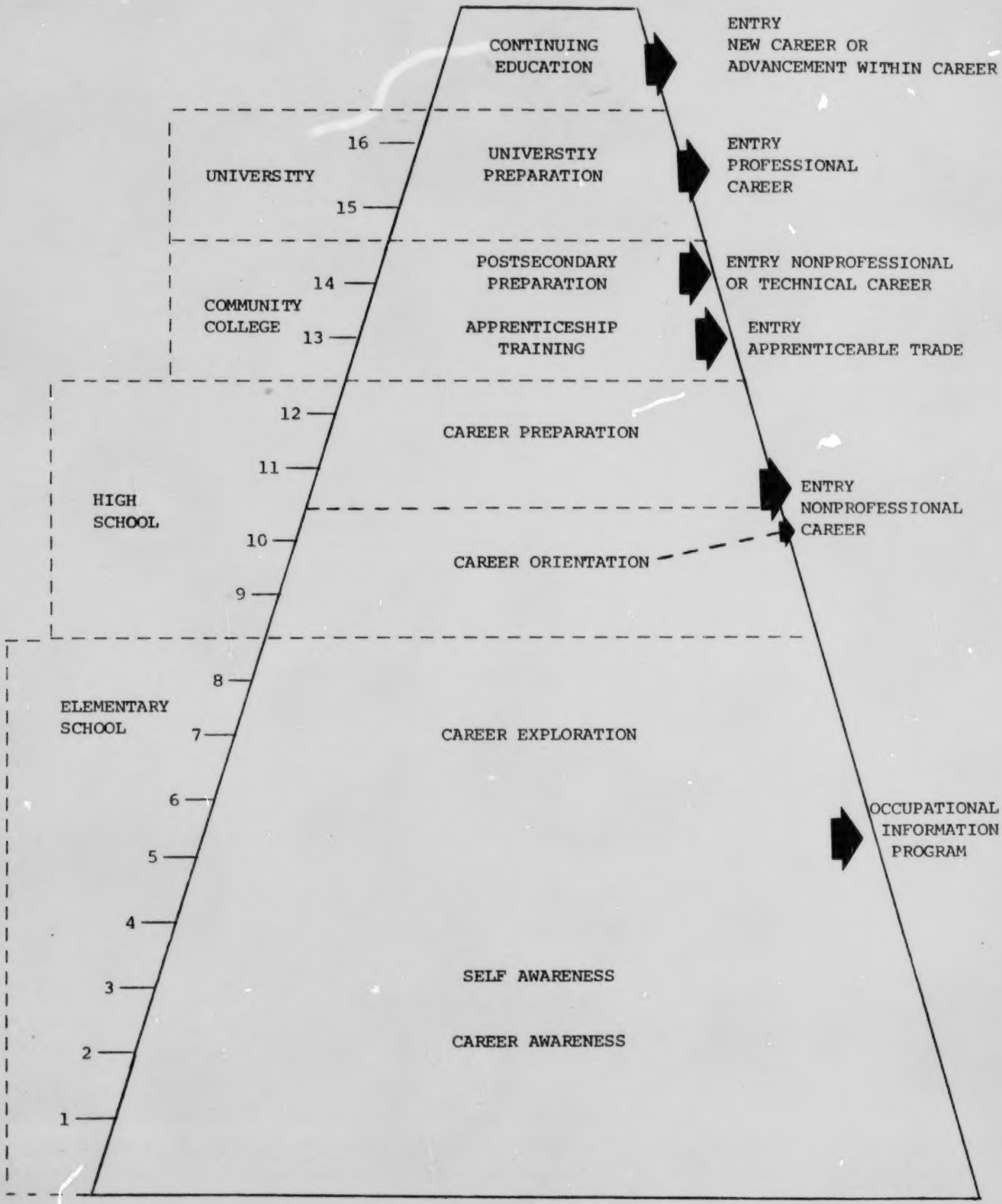
The following definitions should help you eliminate this confusion. They are presented in order, from the more narrow concepts to the broadest; that is, they start with vocational education and end with career education.

DEFINITIONS
OF
TERMS

Vocational education involves specific skill-oriented training. It usually occurs after grade 7. It prepares students to seek, acquire and succeed in a specific trade, technical or occupational field requiring specialized training or skills for entry. In Massachusetts vocational education generally refers to specific training programs funded by Chapter 74, the state vocational education legislation.

Occupational Education is a more general term and as such encompasses vocational education. Occupational education also generally occurs above grade 7 but, unlike vocational education, occupational education includes all skill training and related

Figure 1.1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CAREER AWARENESS
1

MODEL OF A COMPREHENSIVE DEVELOPMENTAL
CAREER EDUCATION PROGRAM

experiences which help prepare youth for the world of work. For example, occupational education includes programs such as industrial arts and nonconsumer home economics which are not considered vocational programs under Chapter 74. Occupational education also includes many innovative programs such as career guidance, cooperative education, work experience, and internships, which provide both vocational and nonvocational students with opportunities to explore the world of work.

Career education is the most comprehensive of all these terms. It includes both occupational and vocational education but, unlike either one, career education is not a separate school program or course. Career education is a general term for a *developmental and sequential program* involving many activities to help youth prepare for work.

The key to your understanding career education is for you to realize that it begins at the earliest grades helping students understand themselves and the world of work, and teaches them how to make decisions about how to live their lives. As a part of this process students may or may not participate in occupational and/or vocational programs. Career education helps students look at the available options and decide for themselves. It assures that they will have the necessary skills and knowledge to make those decisions. See Figure 1.2 for an outline of key differences among career education, vocational education and occupational education.

Goals and Objectives of a Comprehensive Career Education Program

A number of state, national and local groups have developed goals and objectives for career education. While these policies vary somewhat in specific content, overall they agree that comprehensive career education programs should have eight basic components. The Massachusetts version of these components is outlined below along with the appropriate student outcome goals.

Component: Self-Awareness

Goal 1: Students will become aware of their own aptitudes, abilities and values, and will relate this knowledge to possible career and life roles.

Component: Attitudes and Appreciation

Goal 2: Students will develop an appreciation of and positive attitudes toward possible career and life roles.

Component: Career Awareness

Goal 3: Students will become aware of a broad range of occupations and career patterns available to them.

Figure 1.2

DIFFERENCES BETWEEN CAREER EDUCATION, VOCATIONAL EDUCATION, OCCUPATIONAL EDUCATION*

Career Education	Vocational Education	Occupational Education
- focuses on paid and nonpaid work	- focuses on paid work	- focuses on paid work
- emphasizes general career skills	- emphasizes specific occupational preparation	- mainly emphasizes specific skills for occupational preparation but includes some general career skills
- is taught by all educators	- taught by certified vocational educator	- taught by certified vocational or occupational educator
- focus on all instructional programs at all grade levels	- focus on secondary and postsecondary, specific vocational courses	- focus mainly secondary and postsecondary specific occupational courses
- involves all students	- involves only students enrolled in vocational courses	- involves only students in occupational programs

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*Adapted in part from Brolin (1979), p. 102.

Component: Educational Awareness

Goal 4: Students will become aware of the relationships between education and career and life roles.

Component: Economic Awareness

Goal 5: Students will become aware of economic processes and how they relate to personal and societal goals, decisions and actions.

Component: Basic Competencies

Goal 6: Students will become competent in basic skills.

Component: Employability Skills

Goal 7: Students will develop employment skills applicable to their developing career pattern.

Component: Decision-Making

Goal 8: Students will understand that decision-making includes responsible action in identifying alternatives, selecting the alternative most consistent with goals, and taking steps to implement a course of action.

Objectives are specific statements used to break down goals into performance and outcome statements. Each of the preceding goals can be broken down into many objectives keyed to specific grade levels. Possible objectives are too numerous to state here. You are encouraged to consult the Massachusetts Plan for Career Education as well as other resources listed at the end of each chapter for examples of objectives related to career education goals.

Components of Comprehensive Career Education Program

A school-based career education program incorporates a number of different components as part of a comprehensive approach to assisting students with their career and occupational development. While each school may adopt its own approach to implementing career education, evaluation data from successful demonstration projects have shown that four components seem particularly important. These four are: curriculum infusion, community involvement, guidance services, and staff development. A brief description of these components follows. Additionally, specific chapters in this handbook cover these components for you in more depth.

Curriculum Infusion: Career education practitioners have found that career decision-making skills, knowledge and attitudes are best achieved if they are infused into the content of existing courses rather than packaged in a formal career education course. The basic rationale behind advocating the infusion approach is that pupils can acquire the skills, knowledge and attitudes career education seeks to convey while simultaneously being motivated to learn and to increase the amount of subject matter actually learned. Integrating career education concepts can revitalize the curriculum. Infusion helps make regular instruction more relevant and more fun. It is important for you to realize that infusion is not a new idea. Many teachers already incorporate career education activities in their classrooms. Infusion means formalizing current activities and expanding their use to include all career education concepts.

ESSENTIALS AND INFUSION

Aside from helping make the curriculum more fun and relevant, infusion is essential because it spreads the responsibility among the staff for assisting students with career development. If a career education course were merely added to the curriculum, the responsibility for transmitting career education skills would rest solely with a career education teacher. Additionally, infusion lessens the cost for implementing career education. If a new course were added it would mean hiring new staff and fresh complexities. Through infusion, current staff are utilized and costs minimized.

In short, curriculum infusion is an essential component of career education. It provides a way of revitalizing current curriculum with new activities focused on career education goals that simultaneously support content learning. It requires that all staff share responsibility for students' career development. It is a proven cost-effective approach to implementing career education.

HOW TO INVOLVE THE COMMUNITY

Community Involvement: Career education is not something you can do by yourself. Without the active involvement of both the business-labor-industry community and the home and family, career education cannot succeed. Basic collaborative roles for members of the business-labor-industry community include:

- serving as resource persons in classrooms at all levels of education to help students know and appreciate relationships between education and particular kinds of work;
- providing observational work experience and work-study to students and to those who educate students (teachers, counselors, college professors and administrators);

- providing expert knowledge and consultation to educators concerning the nature of work, the changing nature of occupations, learning opportunities in the business-labor community, and basic principles of the free enterprise system and the organized labor movement;
- providing collaborative assistance to education personnel in attempts to help school-leavers, at any level of education, make a successful transition from school to work;
- working with educators who, with both young and adult students, are trying to provide skills that will help persons make more productive use of leisure time.

Basic ways in which you can seek the collaborative efforts of home and family include:

HOW TO INVOLVE THE FAMILY

- using parents as role models for particular occupational lifestyles through their presence in the classroom and/or through materials and information they supply for classroom use;
- helping both parents and children view the home as a kind of work place -- as a place where all family members work, not just the mother;
- involving parents to a greater and more positive degree in the career development of their children;
- involving parents and school personnel in emphasizing the constructive and positive values of work in one's leisure time.

Thus, collaboration means working with others outside the school to help students in their career and occupational development. Collaboration can have positive effects for the school as well as for the students. By including parents, business and labor in the educational process, a more favorable image of your school is created. Community support for your school and its programs will increase.

Guidance Services: An integral part of any career education program is an effective career guidance service. The recent Massachusetts Career Guidance Handbook (McClain, et al, 1979) establishes as its theme that career guidance "moves through the process of exploration, understanding and action, or more succinctly, discovering (self and world of work), deciding (on educational and career options) and developing (objectives in a chosen career path)." Thus, the goals of career guidance are closely related to those of career education.

THE DUAL ROLE OF GUIDANCE SERVICES

Guidance services have a dual role in relation to a comprehensive career education program. One responsibility is to develop and coordinate a career counseling program that reaches every student in the school. Career counseling involves helping students understand themselves better and relate this understanding to educational and work opportunities. Methods for conducting career counseling include group and individual activities, using assessment instruments and providing accessible career information. Through career guidance the counselors can reinforce career education concepts introduced through classroom curriculum infusion and more personally help students explore and decide upon career goals.

The second role for guidance services is to provide coordination, support and resources for teachers and other staff who are implementing the career education program in the classroom. In successful career education programs guidance counselors have teamed with teachers in designing classroom activities for infusion. They have developed a list of community resource persons. In addition, they supervised the development and operation of career resource centers open to all school staff and students.

Due to their background and knowledge, guidance counselors often become the coordinators for career education. They can provide the leadership for a team approach to career education which includes parents, school staff, and other community members.

Thus, strong and innovative career guidance services are essential to a successful career education program. Guidance counselors work with students and staff in promoting career education concepts. Their role is to provide direct assistance to students and to support and provide resources for the rest of the staff.

Staff Development. The final and perhaps the most important component for successful career education implementation is staff development. The three preceding components -- infusion, community involvement and guidance services -- all rely for success on an involved and enthusiastic school. Staff development is the key to this support. Staff development means gaining staff involvement and strengthening that involvement through inservice training.

THE KEY COMPONENT OF IMPLEMENTATION

A word of caution here. Staff development also means change -- changing attitudes, behaviors, habits and traditional approaches. There are times when change is frustrating and difficult. It takes time and, to be successful, requires planning and patience.

Research in the area of change in schools has shown that creating staff involvement with new programs is a developmental process. Staff involvement begins on an informal basis with support groups of interested volunteers. As the support groups publicize their activities, plans can be made for more formal training involving larger numbers of personnel. A key is to determine staff needs, prioritize them, and then involve staff in designing and implementing the training. You must remember, a successful staff development program is a long-term project.

Guide to Using MCESDG

This handbook is primarily designed as a resource manual for you to use in conjunction with state and/or local level career education staff development training sessions. This handbook has seven chapters, including this introductory one.

Each chapter except the first one includes an introduction, examples of successful implementation strategies, and sources for reference materials.

HANDBOOK OUTLINE

Each chapter may be used separately from the others. You may wish to hand out chapters as you cover topics as part of staff development or you may wish to use them only as a resource in planning your own training session.

The topics covered in this handbook were chosen based on the results of a needs assessment conducted as part of the Career Education Leadership Project. The topics include:

Chapter 1 - Introduction to Career Education

Chapter 2 - Career Education Program Planning and Implementation

Chapter 3 - Getting Staff Involved and Models for Inservice Training

Chapter 4 - Systemwide Career Education Curriculum Infusion

Chapter 5 - Community Resource Utilization

Chapter 6 - Career Education and Special Needs Students

Chapter 7 - Evaluating Career Education

CHAPTER II

CAREER EDUCATION PROGRAM PLANNING AND IMPLEMENTATION

Introduction

PLANNING MEANS CHANGE

Career education program planning and implementation encompasses all the procedures, processes and activities necessary to change a school system which offers only limited career and occupational programming for some students to one that provides comprehensive career education programming. This includes curriculum infusion, career guidance and community collaboration for all students at all grade levels. Obviously such changes are neither quick nor easy. Yet a large number of school systems both within the commonwealth and throughout the nation have successfully made this transition.

CHARACTERISTICS OF SUCCESSFUL PROGRAMS

A review of 81 national career education projects reveals that three of the most important characteristics of successful programs are: (1) lengthy planning periods involving school administrators, (2) carefully thought out timelines for implementation, and (3) initial implementation with a small pilot or demonstration project. So, this chapter will present you with some specific guidelines for planning and implementing career education--first on a small scale, then on a larger district-wide scale.

The chapter is divided into three parts. The first section presents an overview of career education as an educational change process. It also suggests some important guidelines to follow as program planning and implementation take place in both small and large scale projects. The second section addresses the steps involved in planning and implementing a pilot, demonstration or small scale career education project. The third provides guidelines for planning and implementing a district-wide career education program. Examples and additional resources are provided for each section.

GUIDELINES NOT RULES

First, a word of caution is necessary. Herriot and Gross point out "foolproof formulas or rulebooks for conducting successful change efforts do not exist and probably never will." The guidelines presented here are only that--guidelines. As with all development activities, there are often simultaneous tasks which make it difficult to isolate the flow of the process into straightforward step-by-step procedures. In preparing the materials for this chapter, certain steps have been identified; however, as a school system begins developing its own plan, it should adapt and/or change procedures to fit the local situation.

Overview of Career Education as an Educational Change Process

Implementing a district-wide comprehensive career education program constitutes a major change in the operation of an educational system. Even a small pilot project will involve changes in current programming, staffing and attitudes.

CHANGES NEEDED FOR CAREER EDUCATION

As a perspective on the types of changes that should be expected, five change dimensions related to implementing career education have been identified. These are:

- Changes in tangible resources, e.g. facilities, equipment and materials;
- Changes in intangible resources, e.g. staffing patterns, organizational alignments, student groupings;
- Changes in the knowledge and understanding of the implementers, e.g. teachers, counselors, administrators must learn career development concepts;
- Changes in implementer role behavior, e.g. counselors team with teachers in developing career education activities;
- Changes in attitude and values, e.g. acceptance of community collaboration, acceptance of career education infusion as a valid supplement to academics.

To assure that these types of changes do take place with little conflict, career education planners need to be aware of the general process of change before beginning to actively plan and implement new programs.

Much research has been conducted in the area of change and innovations in schools. For detailed information, you can refer to the resource list at the end of the chapter. For general purposes, a brief overview of the stages in the adoption of change and how they relate to planning and implementation is sufficient. Six basic stages in the adoption of change have been identified. They are:

STAGES IN ADOPTION OF CHANGE

- awareness
- interest
- evaluation
- trial
- adoption
- integration

The first three, awareness, interest and evaluation, occur during the more formalized planning period. At this time the planners are creating awareness of what is involved in the change. This awareness leads to the development of a strong interest which includes gathering more information and informing more people. Gradually the planners begin evaluating the proposed change, formulating their own concept and preparing for implementation.

The first step in implementation involves a trial period or pilot project. During this time, individuals who were not previously involved in the change begin to go through the awareness, interest and evaluation stage. During the trial period planners also look for problems and try to remedy them. From the trial stage the innovative moves to adoption, where it becomes more widespread and part of the ongoing system. The completion of change occurs when that change is totally integrated into the bureaucratic structure.

As simple as these stages sound rarely do they ever occur straightforwardly. Progression through these stages can, however, be smoothed by using a number of basic principles. The most important factor is the development of strong leadership from within the organization.

Kennedy noted:

> *...efficient, effective leadership is essential at the planning stages in developing career education... the primary agents of change are usually found at the administrative level.*

NEED FOR LEADERSHIP

Ken Hoyt formulated what he called the "marshmallow principle" to emphasize the need for strong internal leadership to initiate the changes required for comprehensive career education. This principle states in part that:

> *External pressure exerted on an organization to change its basic structure will, for as long as that pressure is applied, cause the organization to bend and assume a new shape. Once the pressure is removed, the organization will resume its original shape. Basic change in organizational structure is accomplished only when key functionaries within the organization make an internal commitment to change.*

INVOLVING MANY PEOPLE

In addition to leadership, the process of change rests on involving a cross section of interested participants in planning. Kennedy characterized this as a process of promoting the feeling of a "joint venture." For career education planning this means that teachers, counselors, students, parents and community members as well as administrators must be involved.

PUBLIC RELATIONS A MUST

While only a limited number of individuals can be directly involved in planning, it is essential that all those who may be affected by the change are kept informed. Simply put, this means that good public relations are important. But merely informing people is not enough. There must be opportunity for discussion and feedback to the planning groups. Temkin, Marvin, Lorne and Denby pointed out in their 1975 guide for comprehensive educational planning that:

> *Partial understanding of the proposed change or unclarified predictions and presumptions result in resistance to implementation of that change. People who are participating in change should have an opportunity to discuss and explore the implications of the change with each other, and to align and realign their personal goals more closely with the organization.*

Additional factors contributing to a smoother change process include: systematic planning, careful implementation and ongoing evaluation and feedback mechanisms. See Figure II.1 for a checklist of suggestions on how to approach change when planning and implementing career education.

Guidelines for Planning and Implementing Demonstration and/or Small Scale Career Education Projects

Three of the more common reasons for conducting a small scale career education project are:

- A school district is considering implementing career education on a wide scale and wants to try it out first at one school or grade level;
- A school district is not currently considering district-wide career education, but project planners would like to try a small project and use the results to provide data to persuade the school board or administrators to try career education on a larger scale; and
- Funds were available for career education, the school district applied, and now planners and project staff must implement.

Although there are different motivations behind these three situations, the steps involved in planning and implementing the programs are still basically the same. While not easy, planning is a logical process that can be learned.

Figure II.1

SUGGESTIONS ON HOW TO APPROACH THE CHANGE PROCESS AS YOU PLAN AND IMPLEMENT CAREER EDUCATION

1. Recognize that there are 5 kinds of changes involved in implementing career education, each requiring more awareness, understanding, and commitment than the former. These are:

   (a) changes in facilities, equipment and materials (tangible resources);

   (b) changes in staffing patterns, student groups, etc. (intangible resources);

   (c) changes in the knowledge and understanding of implementers including teachers, counselors, administrators, and community people;

   (d) changes in implementers' role behavior; and

   (e) changes in implementers' attitudes and values.

2. Remember that change takes time and goes through six stages:

   (a) awareness
   (b) interest
   (c) evaluation
   (d) trial
   (e) adoption
   (f) integration

3. Before you begin to get an understanding of the context in which the change is being introduced, recognize the social, historical, political and cultural realities of the environment in which you are living and working.

4. The various audiences with which you will have to work have stereotyped views of change agents and change itself. Get out of the office; talk to them; identify problems; suggest solutions.

5. From the beginning work on developing in-house administrative leadership.

6. Single out key people integral to the success of the change process. Perhaps develop an advisory committee to obtain formal input from those people.

Figure II.1 (Continued)

7. Always involve those who will be affected by the change and those who make policy decisions.
8. Be conscious and deliberate in planning change.
9. Spell out clearly the long-range implications of the proposed changes as to time, energy and cost.
10. Conduct awareness/community/feedback sessions with all audiences involved so that proposed changes will not be viewed as a situation of enforced compliance.
11. Pilot test new programs or activities so that modifications can be made more easily.
12. Once you begin implementation encourage participating staff members. Support and reinforce them rather than being overly concerned about those who would resist change.
13. Encourage visitors to your pilot or demonstration site. Provide follow-up for visitors.
14. Evaluate your pilot efforts and report to all interested groups.
15. Model the behavior which you seek others to accept and implement.
16. Be patient. Start slowly -- but start!!

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*Adapted in part from The Massachusetts Career Guidance Handbook.

Remember also, as stated earlier, planning is a developmental process and as such each project must modify planning tasks to fit its own specific needs.

Systematic planning and implementation of a small scale career education project should be viewed as an approach to problem-solving. This same concept applies to district-wide comprehensive planning, but implementation will take more time and involve more people.

The 10 steps involved in planning and implementing a career education program include:

- Tentative conceptualization of problem and possible programmatic solution;
- Securing administrative approval;
- Clarifying decision-making arrangements;
- Appoint and orient planning committee;
- Assess needs;
- Develop specific goals and objectives;
- Assess resources;
- Evaluate alternative programs, select appropriate one, develop management plan, evaluation plan;
- Implement; and
- Complete evaluation, report to interested persons.

Each step is briefly described below. Additional resources can be found at the end of the chapter.

Step 1: *Tentative Conceptualization of Problems*

EARLY DEFINITION OF CAREER EDUCATION

Before any specific planning can begin the initiator or coordinator should research the needs for the proposed career education program. It is important to learn as much as possible about the basic concepts behind career education, its assumptions and the needs it will fill. Many reference materials are available to provide assistance in this conceptualization phase. The purpose is to develop a very short tentative program statement which includes a rationale, purpose, and tentative goals. This statement can then be shared with interested administrators, teachers, parents, and school board members. It provides a starting point for other planning tasks. Remember, this is only a tentative statement and will probably change.

Step 2: *Secure Administrative Approval*

INFORM ADMINISTRATORS

It is extremely important for project planners to get their school committee's and superintendent's approval as early in the project planning as possible. This approval process provides an opportunity for project planners to inform the school committee about career education and begin identifying supporters and those who will need more persuasion.

It is helpful at this point to introduce the tentative project statement. Official approval can be either verbal or written, although written is preferable. If possible try to get one of the school committee members or the superintendent to agree to assist with the planning. Remember, you must work to develop strong internal leadership.

Step 3: *Clarify Decision-Making Arrangements*

WHO WILL DO WHAT?

Meet with the appropriate school principal(s) in whose building the project will take place. Spend time talking about the proposed career education project, how it will help, what problems you anticipate, which specific organizational changes you foresee. Again, you are looking for leadership and assistance. Discuss possible members of a planning team; arrange for clerical assistance and planning time. It may take several meetings but this early groundwork is vital to future cooperation.

Step 4: *Appoint and Orient a Planning Team*

FORM A PLANNING TEAM

A key variable in the success of your project is a good, responsible planning team. This team can vary in size, but it is important to include representatives from each group affected by your proposed project: teachers, counselors, administrators, students, and parents and/or community members. Keep the size manageable, a maximum of 12, a minimum of 5. Look for volunteers. You will need interested, responsible candidates.

The first meeting is most important. Spend time talking about career education and generating a group consensus on a definition. Review the steps in planning as outlined in this chapter. Assign various subcommittees, including a needs assessment, resource assessment, and publicity subcommittee. Develop a tentative timeline for committee work. The timeline will depend on how much planning time is available. Be flexible, but firm about following the timeline. Encourage the publicity committee to begin work immediately and to follow through the entire project.

Step 5: *Conduct Needs Assessment*

ASSESS NEEDS OF ALL INVOLVED

A needs assessment provides a way of confirming and/or refuting tentative concepts related to problems, new goals and programs. All individuals who may be involved in a new program should be included in the assessment. However, different groups may be assessed differently. In relation to career education, parents and community members may be surveyed to collect their opinions on problems and new goals. School personnel may be assessed in relation to goals and new programs. Students may be assessed relative to their occupational knowledge and desire for expanded programs. Even if time is short, some sort of needs assessment should be conducted concentrating on students and/or staff. A number of locally developed and commercial instruments are available for conducting needs assessment. Check the resource list at the end of the chapter for suggestions. Also see Chapter VII on evaluation for a more in-depth account of how to conduct a needs assessment. The results of the needs assessment have several uses. Primarily they will be used as a basis for developing specific program goals and objectives. Secondly, they provide baseline evaluation data which can be used comparatively with data collected at the end of the program. Thirdly, the needs assessment process itself provides an opportunity for assessing support for your program and acts as another way of heightening interest and awareness in career education.

Step 6: *Develop and Prioritize Goals and Objectives*

GOALS MEAN ORGANIZING NEEDS STATEMENTS

This is a critical step in your program planning. Your goals and objectives provide a basis for all future program decisions. In developing goals and objectives you will be pragmatically organizing and pragmatically stating the results of your needs assessment. Goals are broad statements of desired program outcomes. Examples of career education goals can be found in Chapter I. Objectives are much more specific and should be stated in performance terms. Each goal will probably have many objectives. If you are planning a career education program that crosses different grade levels, different objectives should be written for the goals for each grade level.

Much as been written on how to develop goals and objectives. Check the resource list at the end of the chapter for assistance.

Step 7: *Assessing Resources*

INVESTIGATE RESOURCES

Before implementation can take place, attention must be given to available resources. The kinds of information to be collected should include: 1) a list of current career and occupational activities in the school district; and 2) a list of other available resources -- print-media-personnel-facilities -- available in the community and the school district. These resources can be paired with appropriate objectives and needs for new resources identified. See Chapter V for guidelines for developing community resource listings.

Step 8: *Programming*

RELATE OBJECTIVES TO OUTCOMES

This step involves selecting the specific program to be implemented and designing a management and evaluation plan. It is extremely important at this point to review as many alternatives as possible. As choices are made you should be sure that there is a clearly defined relationship between the expected outcomes (objectives) and the process or program chosen to meet that objective. A problem with many career education programs is that they assume all their stated objectives (learner outcomes) are directly related to all their chosen implementation strategies.

Also when examining alternatives, your planning group may wish to consider those which:

- have been successful in the past;
- take advantage of expertise of local staff and resources;
- can be implemented with minimal cost.

The points of consideration are only suggestions. Specific criteria must be developed by your own committee.

DEVELOP A MANAGEMENT PLAN

Once the committee has decided on a specific program, you must develop a management plan for implementation. Tasks, resources, time and budgets should be estimated. Many planning aids are available to facilitate development of a management plan. These vary from simple to quite complex. An example of a simple chart is found in Figure II.2. Additional resources are listed at the end of the chapter.

GOALS SHAPE EVALUATION

The final step in programming is to develop an evaluation plan. Like program management, evaluation can be simple or complex, depending on resources and staff expertise. The most basic kind of evaluation is a day-to-day log of the project and its accomplishments. More complex designs include pre- and post-tests and descriptive statistics. The choice of evaluation design rests upon the goals of the program and the motivation behind them. For example, if the project is for demonstration purposes, you must be sure the evaluation design includes factors that can answer questions that the school board may ask when you report back to them. Evaluation is a topic unto itself and is covered in depth in Chapter VII.

Step 9: *Implementing the Chosen Program*

Part of program implementation means that students will participate in career education activities generated through the planning process. Implementation, however, involves much more than just starting career education programs. To implement the new program successfully five conditions must be met. These are:

Figure II.2

PROGRAM PLANNING GUIDE

Program Goal: To provide individual and group career counseling to all students.

Program Objectives: To provide individual career development counseling.
To provide group counseling activities which facilitate career development.

Task	Person(s) Responsible	Projected Cost	Resources Needed	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
1. To establish and maintain an organized call-in counseling service	Counselor		Counseling Space	■	■	■	■	■	■	■	■	■	■		
2. To provide individual career counseling sessions that are counselor initiated	Counselor		Individual Inventories			■	■	■	■	■	■	■	■		
3. To develop and implement an individual inventory service	Counselor	Postage Duplication	Tests Inventories Questionnaires	■	■										
4. To provide students with the educational, social, and occupational information requisite to effective decision-making	Counselor		Materials that provide educational, social, and occupational information		■	■	■	■	■	■	■	■	■		
5. To evaluate the effectiveness of individual career counseling	Counselor	Duplication	Questionnaires and forms										■		
6. To involve other individuals so that counseling can be better attained	Counselor	Duplication	In-service materials			■	■								
7. To provide group counseling activities that facilitate career development	Counselor and Staff	Depends on activity	Depends on activity					■	■	■	■	■			
8. To evaluate the effectiveness of group counseling	Counselor and staff	Duplication	Questionnaire Forms										■		

NOTE: This form provides for twelve months' planning. It is suggested that you expand it to accommodate planning for up to two years.

Source: Rural America: Career Guidance, Counseling, Placement and Follow-through Program for Rural Schools, 1977.

- good orientation of staff;
- development of the skills and knowledge in the staff to carry out the program, plus substantial follow-up;
- availability of appropriate materials and equipment;
- making sure that organizational patterns have been modified to allow for implementation;
- providing motivation and positive reinforcement for participating staff.

IMPLEMENTATION MEANS ORGANIZING STAFF AND RESOURCES

Good orientation of staff means meeting and training all participating staff. If the publicity committee has done its job, staff should be somewhat aware of the proposed project. A training program or sessions are necessary to assure that staff has the knowledge and skills to carry out the program. Necessary equipment, facilities and material must be ready and available. Be sure that new materials have been ordered in sufficient quantity and arrive in plenty of time.

If a new program calls for changes in organization patterns, such as release time for students to go off campus, or counselor-teacher team efforts, be sure that necessary arrangements have been made and cleared with the principal.

As implementation begins, support must be provided for participating staff. Change, even in small doses, is difficult. Things will never go as planned. Be ready to step in if necessary to offer additional help and reinforcement.

During the implementation phase evaluation data should be collected. Periodic feedback to participating staff and students is helpful. As implementation proceeds, encourage visitors, provide follow-up and continue with publicity.

Step 10: *Complete Evaluation - Report Out*

EVALUATION HELPS WITH FUTURE PLANNING

At the completion of the project or school year reconvene the planning committee to review the project outcomes and progress. Summarize evaluation information, interpret data and develop reports for various interested groups. Discuss possible program changes and/or expansion. Begin the planning cycle for the following year.

Guidelines for Implementing a District-Wide Comprehensive Career Education Program

PILOT PROJECTS LEAD TO COMPREHENSIVE PROGRAMS

Small pilot or demonstration projects are often the best approach to introducing career education to a school system. Just the same, they should only be considered a stepping stone to a comprehensive district-wide career education program. For career education to be truly effective it must be planned and implemented on a district-wide level. The steps in planning and implementing such a comprehensive program are basically the same as those outlined in the previous section but will take longer and involve more people. Figure II.3 provides an outline of the major components in planning and implementing a district-wide program. Remember, these are only suggestive of a model to follow. Individual districts should modify according to their current organizational structure and needs. Additional resources providing more detailed information on each step are listed at the end of the chapter. A very brief description of each step appears below.

DEVELOP LEADERSHIP AND SUPPORT

Step 1 - Enlist support of school district leadership. This step basically involves creating awareness and identifying internal leadership potential. If you have already completed a pilot project, use evaluation data as a basis for discussion with influential district personnel on the need for expanding career education and developing a district-wide program. The goal at this step is to develop a group of influential individuals who will provide a nucleus for a district-wide planning committee.

Step 2 - Gain approval of the school board. At this step the potential planning group seeks endorsement by the school committee to begin organizing for a district-wide career education effort. Before seeking approval or endorsement, the group should develop an outline of the employed planning steps. Also prepare a brief statement of the need for career education and be prepared to discuss it with the board. Endorsement may take time, but is a necessary prerequisite to legitimize any further planning. Solicit suggestions for a district-wide planning team and if possible secure a board member as part of the team. Establish initial reporting timelines so that this committee can be assured of being kept up to date on progress.

CHOOSE A REPRESENTATIVE PLANNING TEAM

Step 3 - Appoint and orient a district planning team. The overall goal of this team is to plan, organize and implement a district-wide career education program. The size of the team will vary depending on the size of the school district. Minimally, members should include the director of curriculum and instruction, the director of guidance, director of vocational education, school principals, teacher, student and community representatives. Ideally there should be at least one representative from each school in the district. The major responsibilities of this committee are to:

- develop a district definition and concept of career education;

Figure II.3

STEPS IN IMPLEMENTING A COMPREHENSIVE DISTRICT-WIDE CAREER EDUCATION PROGRAM

Step 1 - Enlist support of school district leadership.

Step 2 - Gain approval of school board.

Step 3 - Appoint and orient district-wide planning committee and subcommittees/community resource committee.

Step 4 - Conceptualize district definition of career education and develop tentative model.

Step 5 - Conduct needs assessment.

Step 6 - Conduct resource assessment.

Step 7 - Revise concept - establish goals and grade level objectives - develop implementation and evaluation plans.

Step 8 - Organize building level implementation teams.
  - develop building plans
  - implement

- develop district-wide goals and objectives;
- set timelines for planning and implementation;
- secure funds and resources; and
- coordinate appropriate subcommittee.

APPOINT SUBCOMMITTEES

Several subcommittees, including a staff development, needs assessment, resource assessment, and publicity, should be formed. These committees will report directly to the coordinating committee. Aside from the coordination, other members of the subcommittees do not necessarily have to be members of the district-wide committee. Advantages in using different people for the subcommittees include involving more people, thus creating more interest and spreading out the responsibility for task completion.

DEVELOP YOUR OWN DEFINITION OF CAREER EDUCATION

Step 4 - Conceptualize district definition of career education and develop a tentative model. The first part of this step involves familiarizing all planning team members with career education alternatives. A thorough literature review should be conducted and visits made to active career education programs in nearby districts. The team should spend time developing its own definition and tentative goals for career education. A variety of techniques is available for this including brainstorming and the Delphi goal setting technique. Once a tentative definition and goals have been determined they should be validated through a needs assessment process.

ASSESS NEEDS AND CREATE AWARENESS

Step 5 - Needs assessment. A needs assessment subcommittee should be responsible for preparing the instrument, collecting and analyzing data. Interpretation should be completed jointly with the district planning team. A comprehensive needs assessment of all affected populations should be carefully weighed against cost and time factors.

It is imperative that some type of assessment be conducted both to validate tentative goals and to provide baseline information for future evaluation. The needs assessment process, if conducted well, acts as a publicity and awareness technique for all participants.

DETERMINE COMMUNITY RESOURCES

Step 6 - Conduct resource assessment. Simultaneous with the needs assessment, a resource assessment subcommittee should be cataloguing and collecting information about available career education resources both in the schools and the community. Resource assessment is a continuous process. Once implementation begins, the subcommittee may wish to take on the task of becoming a district-wide clearinghouse for career education resources.

Step 7 - Based upon a revised concept of career education, develop district-wide goals and objectives, implementation and evaluation plans. This step may take a long time to complete. Developing goals and objectives is a time consuming process. Many districts have used a summer staff development or staff training program utilizing interested teachers, administrators and counselors to develop goals and objectives in working/learning sessions. The subcommittee on staff development may wish to work with the district planning team to develop such a training program. The advantages of using a staff development program as a vehicle for developing district-wide goals and objectives are that:

USE STAFF TRAINING TO DEVELOP GOALS

- staff become more intimately involved with and more committed to career education;
- participating staff develop the expertise to become trainers of other staff in their school and across the district; and
- staff have an opportunity to apply their personal expertise and knowledge to a district-wide planning problem.

Once general goals and grade level objectives have been developed and accepted by the district planning team, an implementation plan including management strategies and evaluation should be developed. See previous section for suggestions. As part of the management plan, individual school building career education coordinating teams should be appointed. These teams will be responsible for developing their own building plan for implementing career education.

INDIVIDUALIZE CAREER EDUCATION AT THE BUILDING LEVEL

Step 8 - Organize school building level implementation teams. Individual building career education implementation teams are responsible for selecting high priority goals, developing specific objectives, and planning implementation activities. Each building's team should include a cross-section of school personnel, students and parents. In conjunction with the district level staff development subcommittee they will plan and conduct staff training. Organization of these building level teams rests with the building principal.

The above outlined steps present only a brief outline of the work involved in organizing a district-wide comprehensive career education program. It is entirely possible that planning for such a program may take a year or more. Implementation when it does begin, should be done slowly -- perhaps a few schools at a time or at particular grade levels. It is critical that a continuous publicity and awareness program be conducted with school and community people. A community advisory board may be helpful. Financial resources will also have to be found. While studies have shown that career education is one of the most cost-effective programs, averaging less than $50.00 per student and in some cases less than $10.00 (Stenner, 1979), some additional financial resources will need to be identified nationwide for planning expenses and pilot projects. Ideally, once a comprehensive program is established, any additional cost can be absorbed by the school system.

Summary of Planning and Implementing Career Education

KEY TO SUCCESS LEADERSHIP AND PLANNING

Planning and implementing both small and more comprehensive district-wide career education programs takes time and effort. Research has shown that two key ingredients are extended planning periods and development of strong internal leadership. The steps outlined in this chapter provide a model for conducting such planning. The discussion of the steps involved in the change process suggest ways to encourage leadership development and grass roots support. All the steps and suggestions presented in this chapter are only guidelines. Specific decisions and planning activities must be formulated on the basis of local organizational structures, needs and past traditions. Change is always difficult but when approached carefully and thoughtfully, can and does take place.

CHANGE IS POSSIBLE

ADDITIONAL RESOURCES FOR
PLANNING AND IMPLEMENTING CAREER EDUCATION

Baily, L. and Stadt, R. *Career Education, New Approaches to Human Development*, Bloomington, Ill.: McKnight Publishing Company, 1973. One of the earlier good books on career education. It lists goals, objectives, etc. Good section on educational change.

Bonnet, D.G. "Recommendations for Implementation and Management of Career Education Projects." in *New Educational Directions*, Crawfordsville, Ind, 1979. ERIC Document #ED143832. Provides a synthesis of suggestions for implementing career education projects based on a survey of evaluation reports from 81 national career education programs.

Brolin, D. and Kokast, C. *Career Education for Handicapped Children and Youth*, Columbus, Ohio: Charles Merrill Publishing Company, 1979. Although the book concentrates on career education for special needs students, it is an excellent reference for planning all types of career education programs. Guidelines and discussion of planning and implementation and staff development are particularly helpful.

The Center for Vocational Education. "Developmental Program Goals for the Comprehensive Career Education Model," Columbus, Ohio: The Center for Vocational Education, Ohio State University, 1972. Good reference for developing career education program goals and objectives.

Havelock, R. *The Change Agents Guide to Innovation in Education*, Englewood Cliffs, N.J.: Educational Technology, Inc., 1973. Case studies and step-by-step guide to introducing educational change.

Herriot, R. and Gross, N. *The Dynamics of Planned Educational Change*, Berkeley, CA: McCutchan Publishing Corp., 1979. Presents a series of case studies on educational change and a comprehensive list of suggestions for facilitating change.

Hoyt, K. *Primer for Career Education*, Washington D.C.: U.S. Government Printing Office, 1973. Good background material for developing an understanding of career education.

Hoyt, K., Evans, R., Mackin, E. and Magrum, G. *Career Education, What It is and How to Do It*, Salt Lake City: Olympus Publishing Co., 1973. Another excellent guide for planning and implementing career education.

Hull, W. and McCaslin, N. *Career Education Implementation: A Handbook for Strategy Development*, Columbus, Ohio: National Center for Vocational Education, Ohio State University, 1978. ERIC #159330. A process-oriented handbook - discusses strategies for gaining acceptance of career education among staff and community members.

References (cont.)

McCaslin, N.L., Gross, C., Walker, J.P. Career Education Measures: A Compendium of Evaluation Instruments, Columbus: The National Center for Research in Vocational Education, Ohio State University, 1979. Currently, this volume provides the most up to date listing of evaluation and needs assessment instruments for use in planning and implementing career education.

Kennedy, E. Implementing Career Education Procedures and Techniques. Lexington, KY: Curriculum Development Center, Vocational Education, University of Kentucky, 1975. Useful practitioner's guide - covers strategies for change, planning, personnel development, and curriculum development.

K-12 Guide for Integrating Career Development into Local Curriculums, Madison, Wis: Wisconsin Department of Public Instruction, 1974. Excellent guide to understanding and conceptualizing career education. Presents step-by-step approach to developing appropriate goals and objectives for different grade levels.

McClain, et al. Massachusetts Career Guidance Handbook, Amherst, MA: Institute for Governmental Services, 1979. Excellent guide to establishing career guidance services as a part of a total career education program. Sections on planning and implementation, community resources, etc. Also available from each of the 6 regional education centers.

Massachusetts State Department of Education. Massachusetts State Plan for Career Education, Vol II. Boston, MA: Massachusetts State Department of Education, 1979. History of the development of career education in Massachusetts, examples of assessments, resources and Massachusetts goals and objectives for career education.

The Original American Early Morning Primer or a How-To-Do-It Guide for Implementing Career Education in Rural Schools. Cashmere, WA: Career Education Project, Cashmere School District, 1977. Helpful guide - covers curriculum development, total school involvement and involving the community.

Project Management-Basic Principles and Techniques. Philadelphia, PA: Research for Better Schools, Suite 1700, Market St., 1978. Excellent reference on day-to-day planning and management of a funded project. Covers budgeting, staff training, planning charts, and change strategies. Available from RBS.

Starr, M. and Magnuson, C. Missouri Career Education Delivery System Training Workshop Handbook, Jefferson City, MO: State Department of Education, Department of Elementary and Secondary Education, 1976. One of the most comprehensive guides for planning district-wide career education. Although oriented to the State of Missouri, it provides detailed organization and planning strategies appropriate for all types of districts. Includes sample needs assessment instruments, guidelines for staff development, curriculum development and organizational structures.

References (Cont.)

Tenkin, S., Marvin, M.D., Lorne, H. and Denby, H. Handbook of Comprehensive Planning in Schools, Englewood Cliffs, N.J.: Educational Technology Publications, 1975. An excellent step-by-step guide for planning district-wide educational programs. Designed to be used by planners as they go through the planning process. Provides specific directions on how to utilize techniques such as brainstorming and Delphi goal setting.

Texas Education Agency. Basic Learner Outcomes for Career Education, Austin, TX: Texas Education Agency, 1973. Good reference for developing grade-specific goals and objectives for career education. Very complete.

Media Resources

A series of 4 films developed by the National School Board Association have proven very useful in providing educators, administrators, school board members, etc. with a common base for understanding career education. The film series is called "A School Board Debates Career Education."

Film #1 - Explains how career education blends theory and practice

Film #2 - Experts answer most questions people usually ask about career education

Film #3 - Ken Hoyt - Director of the U.S. Office of Career Education explains career education

Film #4 - Ken Hoyt comments on the processes of infusion and collaboration

The films are available for rental or sale from: Arthur W. Swerdloff Productions, 4724 Ellenita Ave., Tarzana, CA. (213) 344-6730
Special rates are available for members of NSBA and educational institutions.

CHAPTER III

GETTING STAFF INVOLVED AND DESIGNING INSERVICE TRAINING PROGRAMS

Introduction

CAREER EDUCATION IS NOT A NEW IDEA

STAFF NEED TRAINING FOR NEW ROLES AND SKILLS

For many years a number of teachers, counselors and administrators have been involved in career education of some form. However, as a school system contemplates adopting a comprehensive career education program the need for orienting and providing training opportunities for all staff becomes critical. To be successful career education requires that all staff must make changes in their role behavior and gain new skills, knowledge and attitudes related to career education.

STAFF DEVELOPMENT PARALLELS PROGRAM DEVELOPMENT

As mentioned in the previous chapter, change is not easy, but can happen if it is approached systematically and with commitment. Staff development for career education is a developmental change process. In most cases, career education staff development programs should parallel program development. Staff development and/or inservice training should never be a last minute effort initiated just before program implementation. Instead, it should grow out of a well-planned, systematic awareness, orientation and skill development program that involves staff in helping conceptualize the career education program, includes them in planning, and helps them develop skills, knowledge and attitudes to help assure successful implementation.

The purpose of this chapter is to present guidelines and suggestions for developing a successful staff training program for career education. It covers promoting career education, developing support groups, models for inservice training and specific suggestions on how to plan and conduct training.

Promoting Career Education

CREATE AWARENESS

The first step in staff development is to promote interest in career education as an effective approach to teaching and as a needed educational change. To do this successfully requires skill. It means creating interest and awareness among all staff and identifying those who will be most helpful and enthusiastic with future training and with initial program implementation.

KNOW YOURSELF AS A PROMOTER

The key to successful promotion is a strong belief in and knowledge of career education. To promote career education you, yourself, must believe in it. You must have a clearly developed concept and definition for career education. You must understand the concepts of infusion and community collaboration and be able to explain how they work and how they will effect other teachers, counselors and administrators. You must also be aware of possible problems with career education. If you are sold on career education and realistic about possible shortcomings, others will be more willing to listen to you.

Developing the skills of a good promoter are essential. You must:

SKILLS FOR CREATING AWARENESS

- be motivated -- if you are not really committed and interested, you probably will not be able to create interest;
- have confidence in career education -- you must believe that career education will in fact be beneficial for staff and students;
- be honest -- if there are aspects about career education that you do not agree with, do not gloss over them. Work to resolve these concerns;
- provide service -- always be ready to help others get involved with career education;
- be creative -- use a variety of techniques when making presentations;
- be tactful, but be persistent -- keep talking about career education, but be sensitive to the needs of your listener;
- be interested in others -- show an interest in what other people are doing besides career education. Support them and they in turn will support you.

At all times as you work to create awareness and promote career education, you must be sincere. You need to develop trust with those with whom you are working.

You must also become aware of why people may not be interested in career education. Five possible reasons are:

REASONS FOR NOT SUPPORTING CAREER EDUCATION

- *apathy* -- they do not really care one way or another;
- *misconception* -- they think career education is another name for vocational education, that is, only for non-collegebound students, etc.;
- *lack of knowledge* -- they do not understand what career education is all about and do not understand what their role might be;
- *procrastination* -- they think it is a good idea -- next semester;

- *reluctance to change* -- what they are doing now seems to work and they see no reason to change.

You must work to determine why an individual is not interested in career education. Knowing the cause can help you develop better strategies for gaining their involvement. Remember also, at first you should concentrate on those people who are receptive, then go back to the others who are less interested. At that point they may be more ready to become involved.

IDENTIFY KEY SUPPORTERS

FORM A PROMOTION TEAM

Promoting career education can be as simple, complex, inexpensive or expensive as you have time and resources to expend. The first step in promotion is to identify several key persons who will form the nucleus of a career education support group. Three to five people is an ideal number. If possible try to secure representatives of student, teacher, administrator, parent, and counselor groups. If your initial promotion of career education involves such a representative group it will make it easier for you in the future to convince others that career education requires the participation of everyone.

CHECK WITH ADMINISTRATORS

Having identified a core support group, be sure to consult with your principal or other school administrator to familiarize him/her with your plans. If your school is already beginning to initiate plans for career education programming, the formation of the support group may have already occurred. It is important that the staff development support group be given clear authority to initiate plans for the continued promotion of career education and eventual development of a systematic inservice training program.

MEET AND PLAN ACTIVITIES

Once lines of authority have been established with your principal, schedule and hold your first meeting with your support group. Use this meeting as an opportunity to discuss career education and to develop a timeline for promotion activities. Make the meeting interesting and lively. Concentrate on identifying career education activities currently going on in your school. Discuss ways of informing faculty and students of these activities. Possible strategies include:

STRATEGIES FOR PROMOTION

- a career education bulletin board located in a central hallway;
- a career education column in the school newspaper;
- developing a slide tape presentation on career education activities to be presented at a faculty, school board or parents meeting; and
- a poster contest.

TAKE ACTION

Before you end your first meeting, make specific plans for conducting one promotional event before your next meeting. Immediate action is important. The longer you and your support group wait to conduct activities, the more chance that interest will wane and your promotional ideas will lose impact.

Promotion of career education through informal support groups will provide the basis for your long-range inservice training. The length of time you and your group spend in promoting career education will directly depend upon your school's own plans for implementing career education. If career education is a new concept to your school, more time should be spent on promotion to develop support and understanding. If career education already is being planned, the promotion period will be short and more in-depth planning for inservice training of those who will be directly involved in the career education program is necessary.

Designing Inservice Programs

NO BEST METHOD

While career education as an educational reform has been around for over ten years, even the most recent research has found that there is no best method for conducting inservice education (Herr, 1979). However, research and evaluation reports have contributed to the development of some basic guidelines when considering approaches or models for inservice education. These guidelines are:

GENERAL GUIDELINES

1. Concentrate on quality not quantity -- an orientation should be conducted with all staff but in-depth inservice training should be conducted for a selected group of school personnel who in turn will help interest others in their work.
2. Before you begin inservice training, you must have both a school board policy statement and administrative support.
3. Objectives both for your career education program and training must be clearly stated and your training objectives should be specific teaching performances.
4. Try to provide incentives for participating in the training such as release time, college credit, stipend.
5. Be sure that you have adequate materials and resources for your training.
6. Your training will be most effective if it is directly related to what personnel will be doing in their jobs and when adequate time is set aside for them to practice what they learn in their work schedule.

These, of course, are only general guidelines.

As you and your inservice support group proceed in planning and conducting inservice, you will need to consider the following areas:

KEY AREAS
FOR
PLANNING

- curriculum
- methods/strategies
- management

These areas are interdependent, but for clarity's sake, each will be discussed separately.

CAREER EDUCATION
NOT
A SINGLE FIELD

Curriculum for Inservice Training

A basic difficulty in deciding on curriculum for inservice education lies in the fact that career education is not an academic field. It consists of both specific knowledge and process skills. Neither is sufficient alone. Also the specific curriculum to be decided upon will depend to a large extent upon the definition for career education that your school has developed or adopted. Finally, curriculum must be chosen based upon the identified needs of the personnel to be trained and the new roles they will be expected to fill within your school's career education program.

TRAINING NEEDS
DEPEND ON
SPECIFIC STAFF

Research in the area of staff development for career education reveals the following topic areas as appropriate for inservice training:

GENERAL
CURRICULUM
AREAS

- exploring the concept of career education;
- knowledge of the world of work, occupational hierarchies, job descriptions, content and activities of jobs;
- career guidance counseling and placement;
- child development and career development theories;
- community agencies, service organizations, development and use of community resources;
- economics and the American system of free enterprise;
- innovation and educational change strategies;
- evaluation and assessment procedures;
- curriculum development -- particularly the infusion process;
- individualized learning;
- non-sex and race stereotyping; and
- decision-making skills.

EXPLORATION OF CAREER EDUCATION CONCEPT ESSENTIAL

MAKE CURRICULUM RELEVANT TO SCHOOL PROGRAM

Deciding on which topic areas are most important should be based on the immediate needs for implementing career education and the highest priority skills personnel must have to support implementation. However, most inservice programs always include an exploration of the career concept and orientation to the world of work. Beyond these two topic areas, curriculum should be individualized. For example, if your school will be emphasizing curriculum infusion, then inservice training should involve curriculum development and production of infused lesson plans. Likewise, if community resource utilization is a high priority, then it should be emphasized. Remember, curriculum for in-service must be relevant and immediately useable. Concentrate on specific in-depth training in a few topic areas and leave other topic areas open for future exploration.

Strategies/Methods for Inservice Training

APPROPRIATE TRAINING METHODS ESSENTIAL

As important as the topics you choose will be the training methods or strategies. Methods can be broken into two general categories: overall structure and specific training strategies.

Overall structure means how long and when will the training take place. This in turn will depend on the timetable for the implementation of your school's career education program. Structure can vary from intensive all-day training to weekly or monthly half-day sessions. If a career education program was funded and must be started immediately, intensive training will be necessary. If career education is just being introduced, a longer, more gradual program is appropriate. Each has its advantages and disadvantages. A word of caution -- whichever approach is adopted, there must be follow-up and evaluation to determine if the skills taught are being used.

HANDS-ON EXPERIENTIAL TEACHING STRATEGIES BEST

Once the overall structure has been decided upon, specific teaching strategies must be developed. These strategies will vary depending upon who is doing the training, money, available resources and time. A critical component will be developing strategies that involve active participation of the trainees. Straight lectures will not be effective. Basic tenets of career education are learning through experience and relevancy of subject matter to the world outside of school. Inservice training strategies must emulate these tenets.

SITE VISITS TO INDUSTRY

CONDUCT A COMMUNITY SURVEY

For example, if the focus of training involves knowledge of the world of work, site visits to industry and community organizations would be appropriate. Prepare participants ahead of time to identify various jobs and components of jobs which relate to their subject area or specialty. Upon return from the visit, have participants develop a classroom activity drawing upon what they saw and learned. If training involves curriculum infusion, assist participants in developing infused lesson plans. Community resource utilization might be taught by having participants develop and conduct a resource survey and then demonstrate how the resources can be used in the class. A variety of inservice teaching strategies for each of the curriculum topic areas are listed at the end of the chapter. Additional resources can be found in the bibliography.

Management of Inservice Training

MANAGEMENT
MEANS
ORGANIZING

Management involves planning, recruiting, needs assessment, identification of trainers and resources, scheduling, and evaluation. Management is an ongoing process that will require time and attention to detail. No matter how interesting your curriculum or stimulating your methods, without careful management your inservice training will not succeed.

Planning is the first step in management. During the planning stage the inservice training team must be formed, administrative arrangements secured with the principal, an initial timetable or schedule for training and financial resources determined. Initial planning should involve outlining goals and objectives for training and tentative training topics. At this point these goals and objectives will be tentative, but they provide structure for the rest of the management tasks.

Once initial planning is completed,a method for recruiting participants should be developed. One popular method is to hold a career education awareness or orientation session for all faculty and at the conclusion ask for volunteers to participate in more in-depth training sessions. At this time, be ready to provide information on tentative scheduling, topic areas and any incentives you have been able to attain.

DETERMINE
SPECIFIC NEEDS
OF
PARTICIPANTS

Before making final arrangements for training, you should conduct a needs assessment of the participants. Since you have already decided on tentative topic areas, design an assessment which will give you more information on the specific aspects of each topic that should be emphasized in the training. The needs assessment may be as formal or informal as you desire. The results should be summarized and disseminated to the participants so that they can begin developing a sense of involvement in the training.

OBTAIN
RESOURCES
BEFORE
TRAINING

Upon completing the needs assessment identify trainers and secure materials and resources. If possible, try to get trainers from your own staff or nearby schools. This is not only cost effective, but research has shown that such trainers often have more influence or impact than an outside expert. Materials and resources will vary depending on your plans, but be sure that they will arrive before training is to begin.

Develop a final schedule and disseminate it at least two weeks before training starts. Also develop an evaluation format. Evaluation is essential to provide yourself with information concerning the success of your training, improvement for the future, and to provide information to others such as the principal and school board on what occurred during the training. (See Chapter VII for suggestions on evaluation.)

BE FLEXIBLE

Management tasks will continue throughout the training. Changes in scheduling may occur, new materials may have to be secured, participants may need follow-up and encouragement.

Summary

KEYS TO SUCCESS: PLANNING RELEVANT USEABLE TRAINING

Inservice training is a vital component in implementing career education. It should always be carefully planned and designed as relevant and immediately usable. Inservice training should start through initial promotion and development of a support group. This support group will provide the basis for an internal career education inservice training team. The responsibilities of the training team include curriculum development, strategies and methods, and management. Initial inservice efforts should include orientation of the entire faculty to career education. Actually, training, however, should be limited to a small, interested group. Successful inservice training with this group will provide a cadre of experienced, skilled personnel who, in turn, can provide training to more personnel in the future.

Sample Objectives and Strategies for Inservice Career Education Training*

Topic Area: Exploring the concept of career education.

Objective	Strategy
Identify a working definition of career education.	- Review 3 career education program descriptions of local school districts; identify the basic assumptions and principles behind them. - Compose a hypothetical letter to the school board, listing the needs of the school and community that warrant career education; include a rationale. - Design a series of bulletin board displays, each based on the major goals of career education. - Compare various career education goal/objective matrices - note similarities and differences.

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*Taken from McKinney, Lorella, Career Education Personnel Development. Columbus, Ohio: The Center for Vocational Education, 1975. See this reference for many other objectives and strategies.

Topic Area: Knowledge of the world of work.

Objective	Strategies
Identify information to be taught in the study of an occupation.	- Utilize a resource person to demonstrate skills and provide information about an occupation; specify the various developmental levels for which information/skill is appropriate. - Organize research teams to go out to various work sites representing different occupational clusters; identify occupations and report findings.
Extend knowledge and understanding of the world of work.	- Interview a variety of persons in different jobs to determine educational, occupational, and personal-social requirements for various occuaptions; compare interview information with that of printed sources.

Topic Area: Career guidance, counseling skills.

Objective	Strategies
Develop human relations skills and group counseling techniques.	- Observe activities in a career counseling center to identify skills which enhance K-12 students' career awareness, exploration and preparation. - Co-lead (in conjunction with an experienced counselor) a group of students in a career exploration session.
Develop and demonstrate understanding of decision making and problem solving skills.	- Identify, review, and study instructional materials that address decision-making and problem solving skills. - Practice decision making in small group situations.

Topic Area: Child development and career development theories.

Objective	Strategies
Develop an understanding and knowledge of child development.	- Review several sources on the concept/theory underlying child development. - Develop an instructional unit which includes objectives for child growth and development.

Objective	Strategies
	- Select a career development concept such as respect for the individual and the work one does and develop a unit of instruction including that goal.

Topic Area: Resource utilization.

Objective	Strategies
Develop skills to act as a resource liaison person.	- Identify appropriate community resource persons to assist in a classroom activity. - Observe and survey a part of the downtown business district to identify possible resource persons. - Design a resource survey.

Topic Area: Non-sex and race stereotyping.

Objective	Strategies
Identify/develop an understanding of equality concepts in career education.	- Review and discuss sociological, philosophical and historical literature to identify and trace present and past sex role trends in the world of work. - Identify resource persons whose job roles have changed from what they had traditionally been. - Interview a random sample of employers and employees. Identify and discuss with them issues and problems in the world of work in relation to minorities, sex roles, and equality in employment.

Topic Area: Curriculum Infusion.

Objective	Strategies
Develop curricula that include self-awareness and self-evaluation.	- Develop a social studies unit that addresses awareness of lifestyles and culture.

Objective	Strategies
Develop units of instruction involving basic information about the world of work.	- Design a math unit that uses manpower data.

Topic Area: Evaluation

Objective	Strategies
Identify and provide a rationale for the role and function of evaluation in career education.	- Review and critique evaluations of career education projects; discuss what they told you about the project. - In small groups develop a list of components of evaluation; discuss and defend the relevancy of each.

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CHAPTER IV

CURRICULUM INFUSION

Introduction

Most career education advocates recommend that the skills, knowledge and attitudes students acquire as a result of the career education effort should be infused into the content of existing courses. Infusion, as used here, means that a career development concept is woven right into or taught alongside a regular curriculum topic. Infusion is also present when a real world experience is used to demonstrate the relevance of a currently taught curriculum topic. The infused approach allows daily teaching of career development concepts to bring increased relevance to the other basic topics taught in the regular curriculum.

Three basic reasons for the recommendation of infused career education concepts are:

BASIC INFUSION CONCEPTS

1. Career education seeks to refocus the entire education system back to one of its many important goals -- that of preparation for work. Therefore, all educators should have responsibility for implementing the refocus and for redesigning contributions to student academic achievement.
2. Career development skills, knowledge and attitudes can, for the most part, be effectively and naturally transmitted to students as part of the regular educational process.
3. Add-ons cost more. In a day of attempts to make education more cost effective, infusion adds little to the taxpayers' burden.

The infusion approach is that students can acquire the skills, knowledge and attitudes career education seeks to get across while at the same time being motivated to increase the amount of subject matter actually learned. Students can become more aware of the nature of the world of paid employment and simultaneously learn the importance of the basic academic skills for attaining success in the world of work. They can explore their interest in possible careers and simultaneously learn why subjects they are taking in school are essential for success in those careers.

Students can learn both about the free enterprise system and increase their skills in basic mathematics -- if their mathematics problems are related to free enterprise concerns. They can increase their reading effectiveness by reading about careers in which they have expressed interest while concurrently learning more about careers. They certainly can learn decision-making skills if an activity-oriented approach to teaching is utilized -- which demands decisions of students.

DIFFICULTIES IN INFUSION

Although the infusion approach can be pictured as both effective and practical, it is not easy to implement. Successful infusion implementation depends on the changing of attitudes, knowledge, skills and actions of school faculties. Classroom teachers are the single most important resource for change in education. If infusion is to be successful, teachers must be helped to understand and accept the career education concept. They must learn how to think of the goal of education as preparation for work in relationship to other basic goals of education in part and to the process and content goals to which they are already accustomed. They must learn how to infuse career education skills, knowledge and attitudes into the teaching/learning process in ways that will retain the basic importance of the subject matter.

They must also become more familiar with the occupational society, economic principles, the community as a resource and labor market profiles and projections, especially as they relate to their subject matter.

Guidelines and Models for Implementation

Infusing career education concepts is based on an intensive inservice beginning. When teachers have become more familiar with the total career education rationale and philosophy, they can begin the process of infusion.

FIRST STEP IDENTIFY SUBJECT MATTER

The first major step to infusion is for teachers to identify/re-identify the subject matter/content area and concepts being taught in their classrooms. For example, the concepts taught in a K-12 curriculum include causality, conflict, cooperation, cultural change, differences, interdependence, modification, power, societal control, tradition and values. (National Counsel of Social Studies Teachers Position Paper, 1965) If the teachers have recent texts and materials, their job is easier, as the newer publications and products have identified these concepts in the teachers' manuals.

SECOND STEP DECISION ON FOCUS

The second step involves a decision around which of the eight basic elements teachers will choose for focus. It is not possible to adequately address all eight elements in a semester or in a school year. Also, some of the elements are more appropriate at specific teaching levels, e.g. employability skills in high school, and some elements lend themselves more appropriately to a particular subject or teaching area, e.g. economic awareness to social studies or mathematics.

THIRD STEP DECISIONS ON RESOURCES

The third step involves a decision about who, what, where, how much and how often. Some communities are rich in resources and community participants; institutions are prepared and eager to collaborate in career education activities. Others are isolated or highly residential, so efforts at community resource development may have to be directed at career days or classroom speaker bureaus. Whatever the availability of resources, teachers must deploy the infusion of such resources. They must also be prepared to collaborate with community members in such teaching/learning situations. Joint planning and preparation are a must if student impact is to be relevant and effective.

FOURTH STEP MATERIALS ASSESSMENT

The fourth step involves a careful assessment of commercially prepared materials already available in the classroom and in the school library (or to be purchased). Materials to be used in the infusion of career education concepts should be directed at preparation for work rather than at training in specific occupational skills. They should be easily integrated into the lesson and unit structure and directed at the subject matter content and career education concept to be taught. For example, a filmstrip on economic understanding would be useful in a social studies unit on free enterprise and would address the career education element of economic awareness. Materials should be carefully assessed for compliance to Title IX, to civil rights legislation and to equal employment opportunity regulations (EEO). Copyright dates should be recent as outdated material can cause classroom diversions and can also present students with outdated information. Materials should also be evaluated for their degree of propaganda. A checklist to use with commercial materials should include the following questions:

- Are the illustrations equally balanced among the sexes, the races, ethnic groups, age?
- Do the materials depict a variety of roles, traits and activities for each sex? Do they show role reversal and nontraditional representations?
- Do the materials avoid cartoons and illustrations which are demeaning to either sex, any race or ethnic group?
- Do the materials present occupations and job preparation in nonstereotypical portrayals? Do the materials present both advantages and disadvantages of jobs fairly?
- Do the materials present occupational areas/jobs without economic and cultural bias?

Propaganda is not a reason for avoiding materials but will of course require that teachers do address with students the issue of propaganda and advertising in commercially prepared materials. Materials should be evaluated before curriculum work begins.

REWRITE CURRICULUMS

After the completion of these four major steps, teachers should be given time to rewrite curriculum. If they are subject matter teachers (mostly at the secondary level) they should begin by establishing long-range goals using identified subject matter and career education concepts (see Appendix A). The second step would be short-term objectives to implement the subject matter goals on a daily classroom basis. (It may be necessary at this point to provide faculty with instruction in the writing of behavioral objectives within various levels of learning.)

The following (Figures IV.1 and IV.2) are samples of an outline and unit used at the secondary school level:

Figure IV.1

SAMPLE OUTLINE - SECONDARY SCHOOL LEVEL

UNIT TITLE:

I. Unit Introduction: A brief description of the unit or content area in which you will be working.

II. Goals: A sentence stating what you want to have accomplished by the end of the activity.

III. Concepts: You may want to choose one or more of the career education concepts listed below to focus on in your unit, or you may choose to develop your own concepts.

   A. appreciation and attitudes
   B. self-awareness
   C. decision-making
   D. education awareness
   E. career awareness
   F. economic awareness
   G. skills awareness; beginning competence
   H. employability skills

IV. Objectives: Specific performances students will engage in in order to meet the stated goal.

V. Activities: Here you will develop the classroom procedure for accomplishing your objectives.

VI. Evaluation: Evaluation refers to evaluating the students as to how well they met the goals and objectives of the activity. It will indicate how student performance was measured, for example, did you measure performance by testing, discussion, examination of finished projects, etc.?

VII. Materials and Resources: List all materials students need and resources helpful to you in implementing this unit.

The sample outline information is developed here in a unit taught in English at the secondary level:

Figure IV.2

SECONDARY LEVEL CAREER INFUSION UNIT FOR ENGLISH

GRADE OR SUBJECT: English UNIT TITLE: Communication and Media

I. Unit Introduction: Communication is a two-way process involving a producer and consumer. Most efforts at improving the quality of the media are directed at the producers of films, television programs, books, magazines, records, and other media forms. This unit is aimed at changing the consumer, at developing a more selective and intelligent audience of young viewers. Our concern with the media has to be translated into an active program which helps students to process this vast input of visual information and second-hand experience.

II. Goals: Students will gain a greater knowledge and use of communications media.

III. Concepts:

A. appreciation and attitudes
B. self-awareness
C. decision-making
D. education awareness
E. career awareness
F. skills awareness
G. employability skills

IV. Objectives:

A. To help develop more selective attitudes toward T.V. viewing;
B. To help understand the lack of true objectivity in most T.V. programs;
C. To help develop cultural faculties;
D. To help students define themselves and their relationships with others;
E. To be able to identify basic Video Tape Recording (VTR) equipment;
F. To be able to assemble a Portapac;
G. To be able to operate VTR equipment;
H. To be able to do basic maintenance of VTR equipment;
I. To be able to identify 5 careers in the field of TV;
J. To be able to handle some speaking situations such as the interview.

Figure IV.2 (Continued)

V. Activities:

A. General Orientation
  1. Introduce and identify VTR equipment
  2. Demonstrate basic working procedure
  3. Provide "hands on" experience
    a. panning class
    b. individuals introduce themselves on camera

B. Simple projects and group activities
  1. Mirror game
  2. Role playing
  3. Interviewing
  4. Human machine
  5. Create an environment
  6. Isolation booth

C. Major project - Through a discussion with the class decide on the production of a 1/2 hour TV program. The class will be the production company and the teacher will act as a consultant.
  1. Some types of productions could be as follows:
    a. play
    b. news program
    c. panel show
    d. interview (man in the street)
    e. current affairs
    f. educational
    g. variety
    h. profile

  2. Some suggested staff needs for project:
    a. director
    b. cameraman
    c. audio engineer
    d. video engineer
    e. script secretary
    f. prop man
    g. cost consultant
    h. script writers
    i. performers
    j. announcers
    k. set designers
    l. make-up
    m. electricians
    n. sequence coordinator
    o. music director

VI. Evaluation:

A. Oral: Group Discussion. Have the class watch the finished product and discuss its merit or lack of merit.

Figure IV.2 (Continued)

B. Written
  1. All students will write a critique of the finished product.
  2. All students will develop a report dealing with some aspect of TV production that they feel would interest them most.

C. Technical: Each student will be checked out on operating the VTR equipment sometime during the unit.

VII. Materials and Resources:

A. VTR equipment
  1. Sony Portapac
  2. editing deck
  3. SEG (special effects generator)
  4. four 1/2-hour video tapes

B. Bulletin board
  1. diagrams of equipment setup
  2. photographs of career-related materials
  3. photographs of actual video programs and related items

C. Newspapers and magazines

D. Make-up

E. Props

F. Field trips to local TV studios. Visits from local talent.

G. The Video Tape Recorder in the Classroom, Revised Edition, Victor R. Phillips, Phillips Media Publications, Box 1339, Vancouver, WA 98660.

H. Introducing the Single-Camera VTR System, Grayson Mattingly and Welby Smith, Charles Scribner's Sons, N.Y.

I. Media and Methods, Magazine, October 1972.

J. Occupational Outlook Handbook: United States Department of Labor Bureau of Statistics.

Developed by Donald McCann, Gruly High School, Anne Arundel County, Maryland.

Another way for teachers to develop infusion is across a teaching level, e.g. middle school. This is particularly effective if a basal text is used or if a particular teacher instructs across the classes of the level. The following unit (Figure IV.3), developed for middle schools, is a good example of how this may be accomplished.

Figure IV.3

MIDDLE SCHOOL CAREER INFUSION UNIT

ENERGY: HOW WE USE OUR RESOURCES AFFECTS OUR ENVIRONMENT

UNIT GOAL

The greatest crisis of our time is the quality of our environment -- or the lack of it. The greatest challenge of recent years is for mankind to confront this crisis -- not adapt to it -- and maintain a quality environment for our generation and future Americans. Today's students as tomorrow's consumers have to become aware that the way energy is used will have a profound effect on them, the way they live, and what they someday choose to do for a living.

SIXTH GRADE UNIT OBJECTIVE

Students will learn that a large amount of air pollution is made up of matter produced by burning. They will test air for an invisible polutant and find that their bodies actually produce this pollutant (carbon dioxide). (SEE Investigation 3, "Stop Breathing - You're Polluting the Air!" SPIES You and Me).

CAREER OBJECTIVE

Students will understand that their responsibility for the environment starts with taking care of their own bodies and understanding how their bodies function as part of the environment they live in.

TOPICS

1. Huffing and Puffing; the process of respiration.
2. Stop Breathing - You're Polluting the Air: understanding what a pollutant is and finding one.
3. A chain of chemical changes: what happens to the food in your mouth (Learning Activity 6.1).
4. How the food you eat is changed for consumption by the cells (Learning Activity 6.2).

Figure IV.3 (Continued)

CAREER EDUCATION LEARNING ACTIVITIES

1. Take inventory of exactly what goes into some of the common foods you get at the grocery store by copying the names of the various chemicals and additives from package labels.

2. Look up and find out what some of the common "additives" to preserve freshness are.

3. Find out what the function of some other common additives are (sodium benzoate, mono-sodium-glutamate). Write to some of the companies' consumer departments to see if they can give you information about why certain things are used and if they have any nutritional value.

4. Make a chart to compare what different "kids" cereals have in them. Are some more healthy than others? Which ones seem to contain the most sugar?

5. "Junk Food Junkies": keep a diary of foods you eat over a two-week period that could be considered "junk food" of minimal nutritional value. Compare your list with classmates'.

6. Interview or have the manager of the school cafeteria explain how they try to prepare meals that are "balanced," and nutritious.

7. Activities to form a cluster entitled, "Smoking as Self-pollution":

   a. posters campaign presenting some of the basic health hazards of smoking;
   b. collect research material on the effects of smoking on the lungs and heart; present ideas on charts, posters, or in a booklet;
   c. interview people your age who smoke, asking them if they believe it is having a harmful effect on them, why they smoke, etc. Then interview adults who have been smoking for a long time and ask them the same questions. Try to get some of each group that have tried to quit and ones that haven't.
   Compare groups for results and draw conclusions.

8. Read xeroxed chapters from Herbst's book, Environment entitled "Environmental Protection," and "The Environment, the Future and You." After reading, write a paragraph on whether you think that you would like to get more involved in helping to protect your environment someday.

SEVENTH GRADE UNIT OBJECTIVE

Students will understand that energy and work are closely related. Through experiments, they will learn more about the nature of energy. (SEE Cluster II, The Natural World 1.)

Figure IV.3 (Continued)

CAREER OBJECTIVE

Students will understand that we need to generate energy to perform work, and that our growing society demands that we continue to create even more energy to satisfy consumer needs. But while we are creating more energy, we must also do it in a responsible way so that the quality of our environment may be maintained.

TOPICS

1. What energy is.
2. Energy of motion.
3. Measuring changing energy.
4. Chemical, electrical, light, and heat energy.
5. More about chemical energy.

LEARNING ACTIVITIES

1. Invite a guest speaker from one of the local oil and gas retailers to explain how burners in the typical house can be kept at peak efficienty by proper setting, cleaning, and maintenance. Take notes and present material in the form of labeled posters and diagrams.

2. Using encyclopedia articles and other resource materials, students can make diagrams or models of the various ways in which energy is generated (e.g., atomic reactors, hydro-electric systems, windmills, waterwheels). Also, write to our local and regional electric and gas companies for more detailed information about how their energy is produced.

3. Write or take a field trip to the Bear Swamp Hydro-electric Project or Yankee Atomic. Try to find out information like the following:
   a. What safeguards they use to protect the environment.
   b. Active steps they have taken to actually improve the environment.
   c. What portion of regional energy needs they fill.
   d. A listing of the various occupations at these energy producing sites (further research with the Dictionary of Occupational Titles can give specifics of training needed for such jobs).

4. Write reports on future energy alternatives: solar energy, fuel cells, wind energy, thermal energy, tidal energy. (The PBS's NOVA series had an excellent show on this a few years ago.)

5. Make a list of how the average family in a community like ours could conserve energy.

Figure IV.3 (Continued)

6. Visit or call local hardware and home improvement stores and ask them what kind of energy saving devices they have in stock. Ask them especially about how long it would take for them to pay for themselves in energy saved.

7. Collect information and brochures from local companies that sell woodstoves. Report on their energy saving qualities. Follow this up by an interview with (or have him in to school as a guest speaker) a local fire department officer about the safety requirements that are often not met by people who burn wood as a major source of energy. Also, students might write a report after talking to friends, neighbors, or relatives who burn a lot of wood in the winter (how efficient it is, how safe, etc.).

8. Construct a model (possibly a small working one) of a solar panel energy collector. Write up with a diagram how it works.

9. Find out how many miles per gallon your family's car uses. List all the different things your family uses a car for during the average week. Are there any ways they could economize? Divide list into uses which are essential (e.g. going to work) and nonessential (e.g. going to the store that's only a 10 minute walk away).

10. Visit the local electric company and see what ideas they have for energy conservation. While you're there, ask about the various individual kinds of jobs needed to run the electric company both here and elsewhere.

11. Report on insulation. How much does it cost to insulate the average house? What is the new foam insulation like (advantages? disadvantages?) -- call the local companies. Find out the recommended R-values for this area. After you've become better acquainted with insulation, make a survey in your neighborhood of how many houses have minimum, average, and maximum insulation. If you can, inspect a new home as it is being built (or talk to a carpenter or building contractor) and find out what energy saving things like insulation are being used.

12. Interview some local businessmen. Ask them what their businesses have done (if anything) to conserve energy. Ask them if they have any ideas on ways in which community in general could be more responsible in the way it uses energy. (A good starting point for this would be the Chamber of Commerce.)

Figure IV.3 (Continued)

EIGHTH GRADE UNIT OBJECTIVE

Students will learn about the chemical changes involved in producing energy. They will learn how chemicals can pollute land, air and water in the process.

CAREER OBJECTIVES

Students will learn about the many career opportunities that have expanded around environmental protection and conservation.

Also, they will gain an awareness of their responsibility for conservation and safety in home energy use.

TOPICS

1. Identify possible pollutants (Natural World, 2 "Build-Blocks of Matter").
2. Nuclear reactors like Yankee Atomic in Rowe, MA.
3. Hydro-electric systems like the Bear Swamp Project.
4. How we use and control fire (in Science is Explaining, Unit 5).

LEARNING ACTIVITIES

1. Read about the Three Mile Island nuclear power plant breakdown in Harrisburg, PA. Try to determine what different jobs or career backgrounds the people had who dealt with this problem.

2. Write letters soliciting career information from variouse organizations like the following:

American Association for Conservation Information
400 Royal Street, New Orleans, LA 70130

The Izaak Walton League of America,
1326 Waukegan Road, Glenview, Ill. 60025

National Wildlife Federation
1412 16th St. N.W., Washington, D.C. 20036

Sierra Club
1050 Mills Tower, San Francisco, CA 94104

Water Pollution Control Federation
3900 Wisconsin Ave., N.W., Washington, D.C. 20016

3. After reading about the various career opportunities in conservation and environmental protection, play "What's My Line" using occupational list in the index of Environment by Herbst.

Figure IV.3 (Continued)

4. Make a survey of the city and the surrounding area to determine the job outlook for occupations listed in the Environment index. Also, use the want ad section of available newspapers for larger urban areas (available from the library).

5. Consult the local fire department personnel to find out how various fire extinguishers work and how they can be used in different situations (SEE Problem 3, p. 133 Science is Explaining).

6. Take a survey of the various fuels that are used in the households of members of the class. Determine the approximate percentages of homes using each kind. (SEE Problem 2a, p. 126). Find out unit cost of each (i.e., price per gallon, per cord). Report findings with graphs, diagrams, posters.

7. Find out from the local fire department appropriate safety precautions that should be taken by families who use wood stoves. Ask students to contact friends and classmates that have such stoves to find out if these precautions are being met.

8. Draw diagrams of heat pumps, solar collectors. Find out prices for installation of such things locally and determine the economic practicality of them.

9. Find out which fuel produces the best fuel economy. (SEE Science Project, p. 144, Science is Explaining).

10. Write letters soliciting career information from Mass. Electric, Berkshire Gas. Set up display of information on collage, poster.

11. List as many local occupations as possible that deal with energy production and distribution. Write a brief explanation of any that some students might not be familiar with. Any that strike a student's fancy could be further researched.

Developed by: Robert Scribner, N. Adams Middle School, North Adams, MA.

Summary

IMPLEMENTATION
IS
POSSIBLE

Infusion is possible at all teaching levels and in all content areas. It is the responsibility of all educators. Although our youngsters are definitely ready for this approach, educators are slow to adopt it because of the necessary training and curriculum development time needed to move towards infusion of career development concepts. The preceding information has been presented in order to help educators better understand the process of developing career education infusion units.

At the elementary level the teachers are frequently responsible for instruction in all areas of the curriculum. Therefore, it may be more practical to revise one area at a time. This would allow for practice and skill development in that particular area and for skill development in infusion. Subsequent curriculum revisions would be more easily accomplished. The following (Figures IV.4 and IV.5) are samples of two models frequently used in the elementary school.

Figure IV.4

MIDDLE SCHOOL CAREER INFUSION UNIT FOR LANGUAGE ARTS

CURRICULUM AREA:	Language Arts: Grade 4
TEACHING UNIT:	Paragraphs
STATEMENT OF UNIT OBJECTIVES:	After studying the world of work in newspaper publishing, the student will be able to write a paragraph on the contributions many workers make in publishing a newspaper and be aware of the influence of newspapers.
CAREER EDUCATION AREA:	Career Awareness
CAREER EDUCATION OBJECTIVE:	Students will understand that many worksites are a combination of many interdependent tasks.
LESSON TOPICS:	Gathering information; organizing a paragraph; the importance of newspapers
LEARNING OBJECTIVES OF LESSON TOPICS:	
LESSON TOPIC I	After visiting a newspaper worksite, the students will be able to list the number of tasks observed and discuss their importance in completing the job.
LESSON TOPIC II	After lessons in organizing, proofreading and rewriting, the students will write the paragraph.
LESSON TOPIC III	After viewing a filmstrip on values clarification and newspaper reporting the students will be able to relate to the newspaper as a values clarification tool.
EVALUATION OF UNIT:	Teachers will evaluate the students' written efforts. Teachers will act as discussion leaders.

Developed by: Paul A. Lamothe, Hopkins-Lamothe, Assoc.,
Gardner, MA.

Figure IV.4A

ACTIVITY SHEET

LESSON TOPIC I.	Gathering information
LEARNING OBJECTIVE FOR LESSON TOPIC I:	After visiting a newspaper worksite, the students will be able to list the number of tasks observed and discuss their importance in completing the job.

ACTIVITIES:

1. Students will visit a newspaper worksite and list the number of tasks they observed.
2. Students will brainstorm and discuss the relative importance of tasks they observed in the production of the newspaper.
3. Students will select a task that they wish to write a paragraph about. Filmstrip 139-7, CHOOSING A TOPIC,SVE

LESSON TOPIC II:	Organizing a paragraph
LEARNING OBJECTIVE FOR LESSON TOPIC II:	After lessons in organizing, proofreading and rewriting, the students will write the paragraph.

ACTIVITIES:

1. Students will view and discuss the sound-filmstrip, ORGANIZING THE THEME, 139-8, SVE.
2. Students will view and discuss the sound-filmstrip PROOFREADERS BLUES, 139-12, SVE.
3. Students will write a paragraph on the task of their choice.

LESSON TOPIC III:	Newspapers are important
LEARNING OBJECTIVE FOR LESSON TOPIC III:	After viewing a filmstrip on values and newspaper reporting, the students will be able to relate to the newspaper as a values clarification tool.

ACTIVITIES:

1. Students will view and discuss the sound-filmstrip APPRECIATING DIFFERENCES IN PEOPLE, 775-4, SVE.
2. Students will view and discuss the sound-filmstrip THE NEWSPAPER REPORTER, 610-3, SVE.
3. Students will view and discuss the sound-filmstrip OPINIONS AND PERSUASION, 160-2, SVE.

Figure IV.5

ELEMENTARY CAREER INFUSION UNIT FOR SOCIAL STUDIES

I.	CURRICULUM AREA:	Social Studies, Geography--Grade 5
II.	TITLE:	What are the factors in the relationship between input vs. output?
III.	RATIONALE:	The understanding that the production of any consumer goods involves an orderly, complex process and will help the student appreciate the value of the goods produced.
IV.	GOAL:	To enable the students to comprehend the following factors of input vs. output: production, division of labor, and the Law of Diminishing Marginal Returns.
V.	OBJECTIVES:	Students will form their own work groups. They will complete a task which involves tracing the production of a specific output. Students will be able to transfer their knowledge of a particular production process to other items that they use at home or in school.

VI. TEACHER STRATEGY -
VII. PUPIL ACTIVITY

Initially, students must have a working definition of the three terms: production, division of labor, and the Law of Diminishing Returns.

The strategy involves student participation in order to grasp a working definition of the three principles above.

Procedure for Lesson One:

A class of 32 students is told to divide themselves into 8 groups of 4. They are assigned a very elementary task which involves giving each group the following materials: 1 scissor, 15 pieces of paper, 15 pieces of string, a pencil, and 1 bottle of glue. They are to produce 15 identical items that have a useful purpose in the classroom.

Upon completion have each group explain and show what they have produced. Then discuss with each group and other members of the class the following questions:

Figure IV.5 (Continued)

1. Was the arrangement of your group productive and why?
2. Could you have been more productive in another way?
3. Do friends necessarily make good working partners?
4. Who became the leader of the group? Why?

Then in a large group situation, discuss:

1. Why one group situation succeeded and another did not?
2. What characteristics indicate a productive group member?
3. Do you as an individual feel that you participated satisfactorily?
4. If you had to do this task over again, would you assume the same role?

Next place on the board a matrix to see if each group was a productive working team or not.

SAMPLE MATRIX

	Quickly estab. leadership	Designation of task	Creation of idea	Completion of product
A				
B				
C				
D				
E				
F				
G				
H				

Procedure for Lesson Two

This strategy is designed to establish in the student's mind what is meant by the division of labor. Students are asked to choose a product from a list and explain the production process involved in making this product. Students are to work in 8 groups of 4.

List of Items

1. Newspaper produced
2. Getting a pair of pants cleaned
3. How coffee becomes available at the market
4. Window glass
5. How a pencil is made
6. How a chair is upholstered
7. Process of making cotton into cloth
8. How a cigar is made
9. How a blackboard is produced
10. How a math book is produced

Figure IV.5 (Continued)

11. How a pair of shoes is produced
12. How a rug is produced
13. How a quart of yellow paint is produced
14. How a candy bar is produced

(Items may be changed according to availability of pamphlets to be investigated.)

Students are given a method to follow in order to complete the production assignment. They may choose to do one of the following procedures:

1. Draw a production process on paper (e.g., on timeline paper) then label.
2. Pretend that you are a production assembly line and act out the production process. A script must be written.
3. Have your group draw pictures of the elements of an assembly line and have classmates put them in chronological order.

Procedure for Lesson Three

The Law of Diminishing Marginal Returns

Students will be divided up into 8 groups of 4. Then they, as a whole group, will decide on one item to be made from the first lesson, production experiment. Again, they will be given the same materials to use. (See above.)

Label groups 1,2,3, as Section A
Label groups 4,5,6, as Section B
Label groups, 7,8, as Section C

Section A will complete the task until such time as members of Section C are added to their production line. Section B will produce an identical output as Section A with no additional helpers. Section C will be unable to complete the task due to a lack of manpower.

In conclusion, the procedure will show the Law of Diminishing Marginal Returns.

Post activity: Students will view the short film, "The Man that Had to Sing." Then, discussion will follow on how this little man could be made a productive part of his society. Hopefully, they will summize that every person has something to offer but in different ways.

Figure IV.5 (Continued)

VIII. MATERIALS:	Film, "The Man that Had to Sing"; normal classroom materials.

Developed by: William Fleit, Butler School, Belmont, MA; and Richard Steinhilber, Quinsigamond School, Worcester, MA.

RESOURCES

For information on infusion:

Hoyt, Kenneth, Primer for Career Education, U.S. Government Printing Office: Washington, D.C. 20412.

McClure, Larry, et al., Directions in Career Education, Washington, D.C.: U.S. Government Printing Office, 1977.

Preli, Barbara, Career Education: Teaching/Learning Process, U.S. Government Printing Office (1978), Washington, D.C. 20412.

Raymond, Carolyn, Career Education Handbook for Trainers (Vol. 1), Palos Verde Assoc.: Tempe, Arizona, 1978.

For information on behavioral objectives:

Bloom, Benjamin S., Taxonomy of Educational Objectives, New York: McKay, 1956.

Gronlund, Norman E., Stating Behavioral Objectives for Classroom Instruction, New York: The MacMillan Co., 1970.

Krathwohl, D.R., Taxonomy of Educational Objectives, New York: McKay, 1964.

Mazur, Robert F., Preparing Instructional Objectives, Palo Alto, CA: Fearon Publishers, 1961.

CHAPTER V

COMMUNITY RESOURCE UTILIZATION

Introduction

Relating curriculum to real life enterprises is one of the main tenets of career education. Teachers and counselors cannot possibly be familiar with the entire world of work. It is natural then for classroom teachers to rely on the community in extending curriculum activities and learning. Using specific curriculum as a base, teachers can plan new units or redesign existing curriculums to make meaningful connections between the classroom and the outside world.

RESOURCES ARE DIVERSIFIED IN A COMMUNITY

Community resource utilization must be developed through various means. Money, time, geographic location, transportation, school committee policies, teacher attitudes and community receptivity affect the development of the community as a learning resource. The more commonly developed areas are a) in-house strategies where people and materials are incorporated in on-going classroom learning, and b) community-based teaching of strategies where learning opportunities are provided for students on off-campus sites. In order for utilization of community resources to be a successful part of student learning, school systems and/or communities should develop some type of resource directory.

Role of the Resource Directory

The community resources directory is designed to help the administration and teachers to more effectively utilize existing community resources in the development and implementation of a successful career education program. The directory is not put forth as a substitute for good program planning or teaching, but rather as a useful tool in realizing the full potential in the educational enterprise. The proper utilization of community resources helps to uncover and relate the interdependent agencies and organizations that make up our social structure. It ensures that the classroom is the real world rather than a make believe, miniature, self-contained unit apart from any existing structure.

DIRECTORY IS A TOOL

Effective use of resources demands a conscious plan to avoid duplication of effort. Stated simply, a community resource directory, properly compiled and used, has the potential for making learning relevant and exciting. It is real people and real situations in the real world.

Steps in Developing a Community Resource Directory

The major components of a community resource directory are people, places and things. For purposes of maximum relevancy and use, the directory should include resource persons, businesses and industries, community service agencies and organizations, and governmental agencies. The outline which follows specifies the steps necessary to develop, and, in the case of step 10, update an existing directory. A narrative explanation of how each step should be conducted is provided as a guide for the user.

DECIDE BOUNDARIES

1. *Determine the Geographic Area to Be Included:* Most often, the logical boundaries to consider are those of the school district. Occasionally when a district is very small or largely rural and occupations represented are limited, the boundaries of the area to be included in the directory must be extended beyond the area of the school district. For example, you may wish to include a larger area, especially with reference to governmental agencies where the county seat or state capitol may be the only source of selected government officials.

In large metropolitan areas, the school system can enjoy the benefits of the community represented in that large area. In any case, the geographic area to be included in a survey to identify resources and in a directory listing those resources should be determined before beginning the survey.

A MAP IS ESSENTIAL

2. *Prepare a Map of the Area.* If the school district's boundaries are to be the boundaries for the survey and directory listings, there is probably an existing map that will be usable by the surveyors. Otherwise, a map of the area to be surveyed should be drawn and charted, preferably by someone with some experience in demography. A social studies teacher in the district may be the logical person to approach with this task.

If possible, the map should include any demographic information that would be helpful to a surveyor. For example, if each charted home could indicate the presence (or nonpresence) of school-age children, a surveyor could save time and effort by approaching only the appropriate homes when trying to poll parents. Likewise, the nature of a business or stores would ease the surveyor's task of gathering information on potential field trip sites.

EVALUATE REAL RESOURCES

3. *Determine the Kinds of Resources to Be Included in the Directory:* There is no point in spending time and money to survey and list in a directory resources that cannot be used by the schools or that are impractical or impossible to use. If a local assessment indicates that the six factories in town do not allow people under 18 on the premises because of safety or insurance regulations, there

is no point in polling or listing them as potential field trip sites for youth. Also, a needs assessment in the schools will be an important determining factor in deciding the kinds of resources to be included in the listings of a resource directory.

For purpose of this handbook, the recommendation is that at least the following types of resources be listed: field trip sites, resource persons, work experience opportunities, government and public or community agencies, and materials, supplies and/or equipment that can be lent or given to the schools to supplement and enrich their career education program.

KEEP HUMAN RESOURCES BROAD

4. *Identify the Names, Addresses, and Telephone Numbers of Persons Representing the Desired Resources:* A comprehensive listing of this information will facilitate conducting a survey to determine which community resources are available. Even if the survey is to be conducted solely by mail, it is a good idea to include telephone numbers in this listing for purposes of follow-up; also, a well-developed resource directory will include addresses and telephone numbers of resources so that they can be contacted. When mailing an inventory form to an agency, organization or business, address it to a specific person using his actual name whenever possible. A directory from the chamber of commerce or other community directories will be very useful in preparing this type of master list. Do not arbitrarily exclude any individual, group, or business. Everyone should have an opportunity to contribute to the educational programs of the school. The names and addresses of all parents/guardians should be available from school rosters or registration lists. The addresses of many other adults may be available from taxpayer roles and/or the telephone book.

ORGANIZING FOR INFORMATION GATHERING

5. *Determine the Manner in Which Information Needed Will Be Gathered:* Will it be by mail, by personal interview, by telephone, or by some combination of the above? Time and money available may be determining factors in making this decision. Where possible, a team effort is recommended since involvement generates support and understanding. Provide all persons conducting the inventory with paper identification, including names and telephone numbers of individuals who can attest to the authenticity of the caller. If possible, secure the endorsement of the chamber of commerce, school groups (P.T.A., local teachers' association, or principals' organization) in making the survey.

INSTRUMENTS

6. *Prepare Survey Instruments Appropriate to Each Group:* In order to determine which local resources are available, accessible, and practical for use in the schools, it is necessary to survey the community (the area of previously determined boundaries) and to query persons who will eventually be contacted about the use of resources.

If a general community survey has never been conducted with the end purpose of determining the nature and scope of the community, it may be advisable to conduct one before polling individuals and agencies. Form 1 (Figure V.1) is designed for use in conducting such a survey.

Figure V.1

SAMPLE GENERAL COMMUNITY SURVEY

Form 1

Select items that are practical for the size of the survey and the time allowed.

1. History of the Community
    a. origin: circumstances and date of settlement
    b. trade routes: rivers, harbors, canals, railroads, airports
    c. activities: industrial, commercial, educational -- how and why they developed

2. Location
    a. geography (the Geological Survey, Washington 25, D.C., publishes maps of communities and their surroundings which may be obtained at small cost).
    b. climate: temperatures, rainfall
    c. tourist attractions: scenery, history, sports, etc.
    d. resources available: raw materials, fuel, water

3. Population
    a. number: persons, families, school population
    b. growth: steady, rapid or declining

4. Materials Required by Local Industry
    a. raw materials
    b. products of other industries

5. Power
    a. sources: water, steam, gas, oil, electricity, nuclear
    b. cost
    c. users

6. Industrial Development
    a. plants and wage earners; number
    b. value of products: local industry
    c. waste products: how used
    d. individual industries (important ones): new industries located in the area within the past 10 years; number and kinds closed down or leaving the area

7. Labor Situation
    a. labor supply: adequate or not
    b. labor laws: special laws and local regulations
    c. labor unions: organizations and membership

Figure V.1 (Continued)

8. Employment
    - a. gainfully employed: number (Compare with other areas. Use current census data for state or region.)
    - b. unemployed: number
    - c. relationship to Occupational Outlook Handbook

9. Consumer Purchasing Power
    - a. wage and salary data if available
    - b. income: trends in recent years

10. Living Costs, Standards, and Conditions
    - a. living costs: increase or decrease in prices over last year
    - b. family expenditures: kinds of goods and services used
    - c. housing: average rent; rates for light, heat, water, telephone
    - d. living standards: number of telephones, registered autos, electric meters, radio and TV sets in use, circulation of newspapers and magazines

11. Construction and Real Estate
    - a. building permits: number and value for year
    - b. trends in local construction

12. Wholesale Trade
    - a. number of wholesale stores
    - b. kinds of business: grocery, drug, etc.

13. Retail Trade and Shopping Area
    - a. retail stores: number
    - b. store policies: kinds of credit, advertising, deliveries, etc.
    - c. store locations: downtown, suburban, rural
    - d. consumer buying radius: extent of local newspaper distribution, retail store deliveries, bus lines' area in square miles

14. Buying Habits of Local Customers
    - a. shopping hours: general preference as to time of day, days of the week, time of the month
    - b. out-of-town buying habits: extent, types of goods bought

15. Service Establishments
    - a. hotels: number, description
    - b. places of amusement: number, kinds

Figure V.1 (Continued)

16. Transportation Facilities
    - a. passenger service: rail, water, air, highway, bus, streetcar
    - b. freight service: railroad, truck, ship, air
    - c. pipeline: transporting oil or gas to or from the area
17. Public Warehousing
    - a. storage houses: household goods, general merchandise
    - b. grain elevators
    - c. cold storage plants
18. Banking and Insurance
    - a. principal banks: when established, types -- national, state, etc.
    - b. interest rates
    - c. finance companies: installment, building and loan associations, etc.
    - d. insurance and brokerage offices
19. Professional Service (Check in the classified index of the telephone directory)
    - a. physicians: number, kind, sex
    - b. dentists: number, sex
    - c. lawyers: number, sex
    - d. others
20. Newspapers, Radio and Television Stations (Interview local managers)
    - a. newspapers: names and circulation (obtain advertising rate cards)
    - b. radio stations: names, ownership, wattage, importance in advertising
    - c. television stations: name, management
21. Conventions, Fairs, Expositions
    - a. local facilities for large or small groups
    - b. nature of gatherings: annual or occasional fairs, trade shows, etc.
    - c. importance to community: income, employment
22. Industrial and Commercial Associations
    - a. names of associations: chambers of commerce, grain exchange, etc.
    - b. value to local businessmen

Adapted from "Outline for a Community Survey," in W.J. Greenleaf, Occupations and Careers. New York: McGraw-Hill Co., 1955.

EFFECTIVE INFORMATION GATHERING

7. *Collect Information for the Directory:* The suggested or modified survey forms can be mailed directly to persons in the community or interviews can be arranged in advance by telephone or mail. The purpose of the suvey must be made clear to those being polled so that the best possible collection of information is conducted. A time frame should be established for the collection of information so that the directory can be compiled before the time for its use arrives. Summer may be the best time for data collection and surveying so that teachers can have the directory in hand when the fall term begins.

Collection procedures are explained in much more detail in Section 1 of this program, "Local Needs and Attitudes Assessment."

CHOOSE AN APPROPRIATE CLASSIFICATION SYSTEM

8. *Code and Classify Information:* Information can be classified in a number of ways. One very practical way is to divide information collected into the following categories: field trips, resource persons, work experience opportunities, and equipment and supplies available. These can be further sub-divided into occupational cluster or curriculum areas.

Several other possibilities also exist for coding the data in a meaningful way. Among them are the following:

a. career clusters as identified by the U.S. Office of Education;

b. career clusters as identified by the Center for Vocational and Technical Education;

c. Subject matter categories, i.e.
   art
   biology
   English
   mathematics
   social sciences,
   etc.;

d. Dictionary of Occupational Titles (D.O.T.);

e. Standard Industrial Classification (S.I.C.) (See your counselor for help on this, also); and

f. simple alphabetical arrangement.

Regardless of the code used, the grade levels should also be specified. In some cases, the resource person may very well be able to fit the presentation to several grade levels. Let him make this determination (see Grade Level on inventory form).

The sample form provided is designed so that the resources can be divided into five categories -- persons, parents, businesses, nongovernmental agencies and governmental agencies -- and then into the occupational clusters they represent.

9. *Compile and Publish the Directory:* If coding and classifying are done properly, the directory will be basically compiled. Alphabetical listing is suggested within the categories. As recommended in Section 1 of this program, the printing of the directory may be a good hands-on experience for students with an interest in these skills.

PLAN TO
KEEP DIRECTORY
CURRENT

10. *Updating the Resource Directory:* In the event that a resource directory already exists, or when the developed directory needs updating, the following factors need to be considered. Advisory committees, teachers, and other parties involved in the compilation of the directory should be polled for suggestions for new listings. Present listings should be reclassified or deleted as necessary. Current listed resources may request deletion or modification of their listing. Naturally new listings should be solicited periodically and supplements to the directory should be published as necessary and practical.

The evaluation data collected from students and especially teachers who have taken field trips and used the resource persons listed should be considered in deciding on the appropriateness of trips for various age groups, educational objectives, etc. In many cases a resource ineffective for a specific grade level or educational objective, may prove very effective at another level or for a different educational objective. Evaluations completed by the resource persons and field trip hosts should also be reviewed when making classification decisions. Assure the privacy of all evaluation responses and summaries as appropriate.

In-School Teaching Strategies

There are a number of vehicles that can be used to bring the community into existing curriculum and into the classroom. These cannot be used alone, however, but require orientation and follow-up and the inclusion of pre- and post-activities which will make the exierience(s) meaningful. These are:

WAYS TO
"TEACH"
CAREER
EDUCATION

- Guest Speaker - visit by a resource person with the class or with specific youngsters engaged in a particular unit of study with opportunities for content discussion as well as personal career focus, i.e. preparation for profession, job satisfaction.
- Field Trip - visit to a site in conjunction with a unit of study, with observation and/or participation focus, i.e. archaeological dig.
- Family Participation - one or more family members participating in group or individual projects, i.e. colonial life day including meal preparation and other related activities.

- Teacher Talent Bank - specific teachers designated in school as having interests and talents, to be resources to an individual or group of students, i.e. science club or resource to child having special aptitudes in science.
- Problem Solving - class or small group participation in real life situations requiring practical experiences and possible solutions, i.e. anti-litter campaign incorporating survey of area, exploration of alternative ways to reduce problem, letter to selectmen.
- Interviewing - group or individual process involving the formulation of questions, the questioning and the analysis of answers in relation to a survey, an indepth study, or part of a visit by a guest speaker.
- Shadowing - a process in which an individual student follows someone in his work environment for a designated period of time. It may include having the student make arrangements for the visit, participate in some ways, and report to others about his experience.
- Mentorship - participation by student in an indepth, hands-on situation with a resource person in the actual work environment. This involvement can range from a series of visits to a semester program and may include a related independent project.
- Major Project Involving Small Groups with Different Tasks - a unit study in which there is a variety involvement by students depending on ability, interest, talent. This is an effective way to incorporate multidisciplines with a central theme.
- Role Playing - a simulation experience where students participate as actors in reaction to a real life situation, moral dilemma, or in development of process skills such as interviewing, use of the telephone, finding a job.
- Individual Research and/or Interest Project - involvement by a student in a project which he helps "contract" including its planning, implementation, and evaluation. The project may be part of a class assignment, an independent enrichment situation, or one that takes place of other work. The teacher acts as "facilitator."

- Audio-visual Aids - materials such as bulletin boards, tapes, films that enhance a unit of study, or have specific career themes.
- Learning Centers in Classroom - places where individuals or groups of students can explore interests, use materials including manipulative equipment, library books, pictures, tape recorders.
- Mini-courses - elected activities which have a central theme that are conducted in/or after school, i.e. parent and/or school-sponsored courses that are led by people with expertise, including parents, teachers, craftsmen, high school students, senior citizens.
- Working with Community Resources - hands-on activities in career exploration, problem-solving, content study with resources such as League of Women Voters, town selectmen, departments of public works.

All of the above activities can be utilized at all teaching levels (K-12) and with all content areas.

Community-Based Teaching Strategies

TEACHING THROUGH COMMUNITY

Community-based teaching strategies combine learning outside and within the school into a balanced, comprehensive, individualized program for high school students. After the community has been analyzed for its potential as a learning resource, student experiences are carefully planned, supervised and evaluated. The more commonly developed programs are in the areas of work-study and internship/experiential.

Students learn subject matter normally studied in the classroom, but they learn through the practical application of academic disciplines in the workaday world. They explore important new dimensions about themselves and potential careers and they learn how to make informed career decisions.

Students learn through direct experience with actual tasks, events and facts encountered in the community. They learn by doing. They can gain hands-on experiences with actual job tasks in many different occupations as a way of assessing a variety of jobs for themselves. They gain knowledge in a broad range of subjects and skills as they confront real problems in the community and they see the need to learn more. Each community experience can become a springboard for planning subsequent learning activities.

Some of the better known models of community-based teaching are in the experience-based career education area or in the traditional work-study format. Many communities have developed their own models of internship and work-study.

Experience-based career education involves some changes in what students learn in high school and in how they are taught. The changes in what is learned are based on ways in which high schools can help all students better understand, choose among and prepare for the opportunities available to them in their lives outside school -- at work, at play or as part of their communities.

The changes in how students are taught are based primarily on ways in which learning can be taken out of the classroom and into the community to make it more relevant and realistic for students, provide opportunities not available in schools and give students a chance to meet a wide variety of people in their communities.

Experience-based career education combines learning activities in and outside the school into a balanced, comprehensive and individualized program for students. Its aims are to bring learning, living and working much closer together.

Work study programs are less effective in that they are rarely curriculum-related or individualized to meet the needs of students (Monthly Labor Review, February 1980). Part-time jobs do help some high school students to learn new skills or find a career. However, many of the jobs are in retail or fast food areas -- "secondary jobs" that pay low wages, require few skills and provide few incentives to keep students on the job. Cooperative education and distributive education programs are usually the more successful of the work-study efforts (e.g. Northeastern University or Quinsigamond Community College cooperative programs).

Wide varieties of use of the community as a learning resource do exist. Investigation in this area can range from the Parkway School in Philadelphia to the many Outward Bound and Inward Bound programs across the nation.

RESOURCES

For information on experience-based career education:

- Appalachian Educational Laboratory
  P.O. Box 1348
  Charleston, West Virginia 25325

- Far West Laboratory
  1855 Folsom St.
  San Francisco, CA 94103

- Northwest Regional Educational Laboratory
  710 S.W. Second Ave.
  Portland, Oregon 97204

- Research for Better Schools
  1700 Market St.
  Philadelphia, PA 19103

For information on privately-sponsored internship programs:

- Dynamy, Inc.
  Cedar St.
  Worcester, MA 01609

For information on employment and training models:

- Department of Labor
  Office of Youth Programs
  Washington, D.C. 20213

For general information on the "community as resource":

- USOE/Office of Career Education
  400 Maryland Ave., N.W.
  Washington, D.C.

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CHAPTER VI

CAREER EDUCATION AND SPECIAL NEEDS STUDENTS

Introduction

Since it was first launched as a movement in 1971, career education has had many definitions. Hoyt, Pinson, Laramore, and Mangum (1973) state:

> *Career education represents the total effort of public education and the community to help all individuals become familiar with the values of a work-oriented society, to integrate those values into their personal value structure, and to implement those values in their lives in ways that make work possible, meaningful and satisfying to each individual. (p. 19)*

THE COMPONENTS OF CAREER EDUCATION

In order for this definition to work, several components must be recognized. Classroom teachers at all levels must teach work values and emphasize the career implications of their subject material. Just about any class can become a vocational skill training area if the teacher concentrates on skills, recognizing a need to expand skills and make them appropriate for all levels. There must be an active effort of the business and labor community to offer observational opportunities to students as well as teachers. Occupational needs cannot be learned through a textbook alone. A chance to get out into the job arena and see what is going on there will aid in developing skills as well as facilitate in job placement. Career development programs must be designed to help students understand themselves, make reasoned decisions, accept personal responsibilities for their decisions, understand available environmental opportunities and convert the decisions into personal realities. Finally, an emphasis must be made to develop a work effort in the home. School values taught in terms of work effort can be re-emphasized in the home.

THE LIFE-CENTERED APPROACH

These components are of particular importance when career education for the special needs student is considered. In this life-centered approach in their career development, the individual compiles experiences that provide a background of knowledge in the world of work that will ultimately be used in making tentative career choices and final career decisions. Daily living, social, personal, and occupational skills are combined to help all individuals become productive members of society and achieve personal fulfillment. Special needs career education covers many settings: home, school, occupation and the community -- all helping individuals play the roles of student, worker, consumer, citizen and family member.

Once teachers become aware of these strategies they should take care to implement appropriate programs, keeping in mind potential problems as well as benefits. Problems include the possibility of injury or accident, the confusion of working with others, the tendency for too much socializing and the difficulty special needs students have with concentration. Further, classroom teachers may find it difficult to apply these strategies to their teaching methods. For example, teachers must be constantly aware of safety factors in the classroom, the difficulty of assigning joint tasks, and the pressure of sharing time and concentration between the special needs and regular students. However, the classroom teachers who take the time to plan their special needs student-inclusive programs to include the implementation of these skills and are alert to possible problems will improve overall classroom management.

ADJUSTMENTS FOR SPECIAL NEEDS STUDENTS

Classroom teachers should also use their diagnostic skills to ascertain the special needs students' abilities. These include the basic skills of reading, writing and mathematics as well as the ability to follow directions and the capacity for minimal small motor skills and eye-hand coordination. Through planning and implementation of programs which follow the legal requirements, taking into account learning styles, appropriate strategies and diagnostic skills teachers can integrate any phase of special needs students' career development into the regular classroom program.

INTEGRATION

Thus, the purpose of career education for the special needs student can be delineated in a series of objectives illustrating how the home, school, and community can make work possible, meaningful and satisfying. This life-centered approach to career education for the special needs student will:

- bring about the normalization of all individuals in our society;
- insure as near to normal living as possible;
- eliminate the practice of warehousing;
- help the special needs individual be accepted into the community;
- educate as many individuals as possible to become independent productive members of society;
- help bring about changes in attitudes toward the handicapped;
- cause interaction and attitude changes in our society with regard to educating and hiring practices; and
- Motivate the special needs individual to want work, acquire skills and find jobs.

Planning and Implementing of Career Education for Special Needs Students

BACKGROUND TO MAINSTREAMING

Administrators and those who assist them -- evaluation teams, doctors, lawyers, business men, potential employers, parents, guardians, and teachers all have a part in the planning stages. To receive allotted funding, school districts must place state approved curriculum on file with the department of education. This plan must clearly define long and short term goals and objectives. As a result of federal and state legislation, educators are attempting to develop instructional programs that can be used more effectively to educate special needs individuals in regular course of study. Such programs are characterized by life-centered skills being taught as early as kindergarten. Instruction is carried out with the individuals' strengths in mind and working toward independent competency. Presently, student interaction in a normal setting, or mainstreaming, is the favored integration method.

Until Chapter 766 and P.L. 94-142, curriculum specialists had given little recognition to individual learning styles. Now it is obvious that most special needs individuals lack the prerequisite skills for successful participation in the regular school curriculum. Early screening programs and early remediation are being employed to help special needs students reach their potential. Some special needs characteristics and related strategies are outlined in Table VI.1.

In addition to attention to individual learning styles, students' and teachers' strategies should include allowing freedom to move about the room within a given class structure, and permission to talk in team work situations. An opportunity for students to work with peers in goal-oriented tasks allows teachers to evaluate student skills or to determine better ways for the students to learn. Peer grouping also creates a valuable opportunity for other members of the class to work with the special needs student.

Teacher Collaboration (Curriculum & Instructional Skills for Career Education of Special Needs Students)

Educators may sometimes overlook their own colleagues as a valuable resource in the education of special needs students. Teacher collaboration is effective in developing career education for the special needs student. The major objective in teacher collaboration should be to help the special needs student develop academic and vocational skills to help them live a more useful and satisfying personal, family, and community life.

NEEDED CURRICULUM SKILLS

The curriculum skills needed by the collaborating teachers are twofold: 1) to adapt, restate and implement a curriculum according to individual needs; and 2) to set realistic goals and

Table VI.1

UNIQUE CHARACTERISTICS OF EMOTIONALLY DISTURBED AND/OR LEARNING DISABLED STUDENTS

Poor incidental learning:	• Students lack background and knowledge due to inadequate home environment or brain injury.
Difficulty following directions:	• Students are unable to understand cause and effect and often can read only one word at a time. They have a tendency to follow directions blindly. Teachers should avoid backward directions.
Limited reading and receptive vocabulary:	• Instructions must contain simple words. Audio and visual aids are helpful.
Limited ability to abstract and generalize:	• Teachers would construct learning experiences that use as many students' senses as possible. It is imperative to make learning experiences as real and concrete as possible.
Short attention span:	• Activities must be meaningful. Teachers should work to increase basic skills that students will need to live and function independently in the community.
Inadequate social skills:	• Teachers should mix students as much as possible as they have largely been excluded from social interaction.

behavioral objectives according to the Individualized Education Plan (IEP) formulated by the evaluating team. Designed programs must meet the needs of the special student and the needs of the other children in the class. The curriculum should combine individualized and group instruction based on community input and manpower needs. Skills are beneficial in the areas of developing self-help, performance-based tasks, attitudes and habits related to work experiences, job acquisition and retention.

NEEDED INSTRUCTIONAL SKILLS

The instructional skills needed by the collaborating instructors are an understanding of the continuous process which allows a child to grow physically, intellectually and emotionally and a broad base of knowledge in the academic and vocational area of instructional responsibility. In developing a program for any learner with special needs, careful consideration should be given to alternative learning styles and using the content area of the curriculum as a vehicle to develop the processes of learning. Coffey (1976), Calder (1967), and Calder & Zalatimo (1970) provide research which illustrates that reading, writing, speaking and listening skills should be taught through content in art, music, physical education, home economics and/or industrial arts. Cawley (1977) states:

> *The success of the curriculum depends upon the diagnostic skills and competencies of the special educator being interrelated with the curriculum skills and competencies of the general educator. This matching of resources extends to both the skills and competency level of the professional personnel who work with learners with special needs and to the interrelating of behaviors and curricula with commercial and teacher-prepared instructional materials.*

Sample sequences for business, English and Home Economics, K-12, are shown in Table VI.2.

Career Education Program for Special Needs Students Keyed to Specific Grade Levels

UNIQUENESS OF SPECIAL NEEDS STUDENTS

In working with special needs students, be it Bailey's and Stadt's (1973) program recommendations or others, the teacher must be aware that the special needs student shows a unique set of characteristics and problems together with some of those common to the nonhandicapped. Recognizing this at an early stage in special needs children's career education and using the common characteristics they share with other students, the teacher will be able to suitably adapt classroom and teaching techniques toward these commonalities.

Table VI.2

SCOPE & SEQUENCE: BUSINESS, ENGLISH AND
HOME ECONOMICS AREAS, K-12

OVERALL OBJECTIVE: *To provide a sequential curriculum emphasizing daily living. To develop threshold skills and general competency in home management, communication and business.*

INDIVIDUAL OBJECTIVES	BUSINESS	ENGLISH	HOME ECONOMICS
To know ways in which speaking & listening skills contribute to personal & career effectiveness.	Word processing skills	Speaking skills Listening skills	Exploration of interpersonal relationships
To use writing skills needed for job resumes, applications, reports, business letters, social forms.	Typing skills	Writing skills	
To determine choices of purchase, investment, savings & employment & substantiate reasons for choices when presented with a number of long and short range opportunities for purchases and lifestyle.	Investments	Reading Skills	Decision-making process -- consumer spending and career choices.
To demonstrate an awareness of restrictions on credit buying imposed by budgetary limitations.	Consumer credit	Reading skills	Values clarification and personal money values.
To demonstrate the ability to distinguish between needs & wants according to a variety of individual value systems.	Insurance	Reading Skills	Both evaluation & development of personal philosophy.

Table VI.2 (Continued)

INDIVIDUAL OBJECTIVES	BUSINESS	ENGLISH	HOME ECONOMICS
To determine methods for making judgments about mass media advertising. Evaluate orally and in writing various techniques of advertising.	Psychology of advertising	Reading skills Speaking skills Writing skills	Sources of consumer education
To demonstrate a knowledge of consumer services provided by business, government & private agencies by preparing information guides appropriate for use by adults and students.	Typing skills Consumer protection	Research skills Writing skills Reading skills	Nutritional labeling; Fabric information
To investigate the services offered shoppers in each type of store and explore the possibility of job opportunities in those areas as well.	Job opportunities in sales and retailing	Research skills Speaking skills Interview	Chapter 622, ERA, employee rights
To determine the source of a variety of products found in students' environments & explore career opportunities directly involved in the process.	Office careers	Research skills as related to career opportunities	Opportunities in food and clothing industries

Since the inception of P.L. 94-142, known as the Education for All Handicapped Children Act, the current focus has been on career education for the special needs student in the most appropriate, least restrictive setting. The concept of career education encourages and supports a systematic, sequential and ordered career development process. Career development is facilitated by learning experiences touching on phases of career education. Handicapped or nonhandicapped, students differ in each stage of their lives. During these stages, students are compiling experiences providing a background of knowledge of the world of work that will ultimately be used in making tentative career choices and final career decisions.

THE FOUR-PHASE APPROACH

Bailey and Stadt (1973) formulated an approach to career education composed of four phases. Each phase corresponds to the educational level of elementary, middle, junior and senior high. Six areas of career development are identified and considered essential to career education: 1) self-concept; 2) occupational, educational, economic concepts and skills; 3) sense of responsibility and initiative as students work toward occupational choices; 4) information-processing skills; 5) interpersonal relationships; 6) work attitudes and values. (See Table VI.3)

Individual Education Plan (IEP): Delivery of Career Education Services

MEETING SPECIFIC STUDENT NEEDS

The teacher's classroom strategy must be based on an understanding of the factors cited previously. One specific source which teachers should use to assist them in their own attempts to learn about the individual student's needs is the Individual Education Plan (IEP) regulated by the Commonwealth of Massachusetts. The purpose of the IEP is to insure that the educational program is designed to meet the student's specific needs. These needs may require a learning center, programming and self-instructional materials, encouragement that each child move at his/her own learning rate and continuous evaluation.

IEP CONTENTS

The state regulations regarding the IEP for a special needs student indicate the areas of assessment which must take place before the IEP is written. The IEP must include a history of the child's education, an overview of the child's school progress, and a statement of the child's current standing. A comprehensive health assessment, a cognitive skills, a sensory-motor skills, a speech and language skills and a social-emotional skills assessment are also included. Each assessment presented shall include recommendations of any prescriptive elements needed to meet the child's needs. A date for the review of the child's progress prior to the annual review may be stated at this time. The IEP should be used as a management tool, not an instructional guide. A sample educational assessment evaluation is presented on page 90.

Table VI.3

BAILEY AND STADT SCOPE AND SEQUENCE OF CAREER EDUCATION

Grade K-3 - AWARENESS

Function: Assist students to understand the basic elements involved in career education and develop skills important to analyzing components of common forms of employment.

Components: Awareness of self, understanding of different occupational roles and responsibility for their own actions. Develop rudiments of classification, decision-making skills and respect for others and their work.

Grade 4-6 - ACCOMODATION STAGE

Function: Encourage students' development of concrete learning, formalizing and complementing gains made in the awareness stage.

Components: Development of self-concepts, concepts related to the world of work, desirable social relationships and work attitudes and values. The assumption of increased responsibility for planning one's time and the application of decision-making and classification skills.

Grade 7-8 - ORIENTATION STAGE

Function: Assist students to deal intellectually with tasks.

Components: Clarification of self-concept, development of individual inquiry and problem-solving skills and socially responsible behavior and more mature social relationships, development of understanding of the structure and correlation of the American economic, occupational and technological systems, assumption of responsibility for career planning, and learning to appreciate work as a valued and enduring social institution.

Grades 9-12 - EXPLORATION AND PREPARATION STAGE

Function: Assist students to expand and refine knowledge and behavior from earlier stages.

Components: Shaping and implementation of a self-concept, execution of plans that will qualify for career objectives, commitment to implementation of a career plan, application of problem-solving, understanding of the dynamics of group behavior in a work situation and achievement of discipline.

A parent has the right to accept or reject the plan and arrange for an independent evaluation, in whole or in part, paid for by the school system. The independent evaluation must be completed within 30 days. Parents or guardians can also arrange for an evaluation at a facility of their own choice at their own expense. If the parents or guardians refuse to sign the plan, either accepting or rejecting it, the school has the right to appeal to the Bureau of Special Education. A copy of the accepted education plan must be given to each person who is directly responsible for the objectives in the plan, including the regular education classroom teacher.

ADDITIONAL PROCEDURES

In summary, the IEP is formulated after a referral by the teacher, parents or guardians and counselor. A formal or informal assessment, a description of the student's problem(s), and the current level of the student's performance is necessary. Tentative solutions are proposed and implemented by means of long and short term goals and objectives. Teaching strategies and collaborating personnel are subject to change depending upon the student's accomplishment of individual skills. The student is monitored by means of pre-test, post-test, demonstration and teacher observation. Review and revision takes place both quarterly and annually or when necessary. The parents' or guardians' approval is necessary whenever a change is recommended in the student's individual education plan.

SAMPLE INDIVIDUAL EDUCATION PLAN
RECOMMENDATIONS RELATIVE TO MARY

Administrative Arrangements

Mary is to report to the resource teacher for two 60-minute periods for one school year. One 60-minute period will be with the social studies instructor and one 60-minute period will be with the mathematics instructor. Special education and related services are to be provided in the curriculum areas by the social studies and mathematics instructors with emphasis on career education. Daily living and career/work behaviors will be stressed in Mary's career development process and reinforced by the home economics, industrial arts and the physical education instructors.

The morning session will be devoted to 30 minutes dealing with how to keep financial records and related activities and 30 minutes will be devoted to consumer skills. For the first term (8 weeks) performance should be maintained at 80 percent accuracy. Response accuracy should be increased to the 90 percent level within the second term (3-4 months) and maintained or increased for the remainder of the school year.

The afternoon session will be devoted to 30 minutes of basic banking procedures and 30 minutes to basic measurement skills. For the first four weeks she will maintain 100 percent accuracy identifying monies and making change up to 300 dollars. She will increase accuracy by 200 dollars each month. She will maintain 85 percent accuracy in basic math functions (+, -, x, ÷) for the first four weeks. She will increase accuracy in the use of basic math skills to 90, 95 and 100 percent each term respectively. She will increase accuracy in the use of basic measurement skills to 100 percent by the fourth term.

Mary will participate in prevocational home economics and industrial arts for one semester. She will also participate in a remedial business English class, regular physical education, lunch and study hall. Each teacher is to have a copy of the short term objectives. Special education personnel will assist the regular classroom instructors in developing activities and locating materials.

The adjustment counselor will be responsible for the overall program. A monitoring and evaluation format is to be prepared by the director of special education.

Activities should be conducted in groups as much as possible and incorporated into the regular classroom setting.

Long Term Goals:

- To keep financial records;

To develop and apply consumer skills;

To acquire basic banking procedure skills; and

To develop and apply basic measurement skills.

Short Term Objectives	Criteria	Evaluation Procedure	Schedule
Maintain personal weekly budget	budget maintained for two weeks	weekly student report	by 10/3/80
Maintain personal monthly budget	budget maintained for two months	monthly student report	by 1/2/81
Compare prices of grocery items by quantity	select 8 of 10 items with largest quantity for price	checklist	by 10/31/80
Prioritize purchases of luxuries and necessities	8 of 10 items	rank order checklist	by 10/16/80
Write checks and deposit slips	90% accuracy	performance test	by 1/16/81
Record checking transactions	95% accuracy	performance test	by 1/16/81
Measure fabrics to within 1/4 inch	8 of 10 trials	performance test using variable fabric lengths	by 9/26/80
Apply +, -, x, ÷ functions to area and perimeter problems	80% accuracy	performance test	by 3/1/81

Date of [✓ acceptance] rejection ______________

Signature Mrs. Mary Doe

Signature ______________

KEY TO MATERIALS LIST

P = Print Materials

C = Cassette

f = film

P = Records

tm = Teacher's Manual

wk = Workbook

t = Text

Pkg = Package of Materials including all or most of the above

REFERENCES BY GRADE:

VALUES & CONCEPTS - HOME, SCHOOL & COMMUNITY

Grades:

K-6 "Focus on Self-Development" (pkg)
3 stages - (K-2) (2-4) (4-6)
Science Research Associates

K-6 "The Human Values Series (pkg)
Annspigen, Blanchetter, Brill & Rucken
Steck-Vaughn Co.
807 Brazos, Box 2028
Austin, Texas 78767

5 First Things: (Values) (pkg)
Kohlberg & Selman
Guidance Associates, Inc.
Pleasantville, NY 10570

5 First Things: (Social Reasoning) (pkg)
Kohlberg, Byrne, Selman & Low
Guidance Associates, Inc.
Pleasantville, NY 10570

6 Developing Basic Values (pkg)
Singer Society for Visual Education, Inc.
1345 Diversey Parkway
Chicago, Ill. 60614

3-6 Inside/Out (pkg)
Agency for Instructional Television
(formally National Instruction TV)
Box A
Bloomington, Indiana 47401

4-8 Developing Understanding of Self & Others (pkg)
Dinkmeyer
American Guidance Service, Inc.
Circle Pines, Minn. 55014

5-12 Understanding Values (pkg)
Eyegate
146 Anchor Ave.
Jamaica, 11435

7-12 Making Value Judgments: Decisions for Today (t)
Elder
Charles E. Merrill
1300 Alum Creek Drive
Columbus, Ohio 43216

Grades:

7-12 A Values Approach to Decision-Making (pkg)
Miguel, Elder, Raths, Harmin & Simon
Charles E. Merrill
1300 Alum Creek Drive
Columbus, Ohio 43216

7-12 Prejudice: The Invisible Wall (pkg)
Goody Koontz
Scholastic Book Services
904 Sylvan Ave.
Englewood Cliffs, NJ 07632

7-12 Search for Values (f - tm)
Curwin, Curwin, Kramer, Simmons & Walsh
Pflaum Publishing
2285 Anbon Boulevard
Dayton, Ohio 45439

7-12 Analysis of Public Issues Program (pkg)
Shaver & Larkins
Houghton Mifflin Co.
One Beacon St.
Boston, MA 02107

9-12 Searching for Values (f - tm)
Hanley & Thompson
Learning Corporation of America
711 Fifth Avenue
New York, NY 10022

Preschool, Kindergarten & Lower Primary (pkg)
The Adventures of the Lollipop Dragon
Singer Society for Visual Education, Inc.
In Cooperation with Lollipop Dragon Production, Inc.
Copyright LPD, Inc.
1345 Diversey Parkway
Chicago, Ill. 60614

Primary-Lower Intermediate
Open-ended Stories (pkg)

Primary-Intermediate (pkg)
They Need Me
How Do You Feel?
What Do You Think?
Two Sides to Every Story
Learning Resources Co.
202 Lake Miriam Drive
Lakeland, Florida 33803

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RESOURCES

ORGANIZATIONS:

American Occupational Therapy
6000 Executive Blvd.
Rockville, MD 20852

American Speech and Hearing Association
9030 Old Georgetown Road
Bethesda, MD 20014

Colorado Instructional Materials
Center for the Visually Handicapped
State Library Building
1362 Lincoln St.
Denver, CO 80203

Council for Exceptional Children
1920 Association Drive
Reston, VA 22091

Directory for Exceptional Children
Porter Sargent Publisher
11 Beacon St.
Boston, MA 02108

Federation for Children with Special Needs
Suite 338-120 Boylston St.
Boston, MA 02116

G.K. Hall
(Large type recreational, textbooks)
70 Lincoln St.
Boston, MA 02116

Information Center for Individuals with Disabilities
20 Providence St., R 329
Boston, MA 02116

Life Skill Company
380 Maple Ave., West
Vienns, VA 22180

Massachusetts Association for Children with Learning Disabilities
11 River St.
Wellesley, MA 02181

Massachusetts Department of Education
Library for the Visually Handicapped
271 Boylston St.
West Boylston, MA 01583

CHAPTER VII

EVALUATING CAREER EDUCATION PROGRAMS

Introduction

The purpose of this chapter is to provide the reader with an introduction to evaluation, with some ideas and guidelines for developing evaluation strategies, and with some samples of evaluation instruments, techniques, and procedures.

What is Evaluation?

Evaluation is a systematic way of examining the processes and/or products of a given program's efforts. An evaluation looks at what a program did, how it did it, and what resulted from it. From the practitioner's point of view an evaluation answers the question, "Where are we?" and provides information to address decision-making questions such as, "How close are we to where we should be?" and "What might be changed to bring us closer to where we should be?"

BASIC DEFINITIONS OF EVALUATION

Fink and Kosecoff (1977) define evaluation as:

> *A set of procedures to appraise a program's merit and to provide information about its goals, activities, outcomes, impact and costs.* (p. 1)

Morris and Fitzgibbons (1978) define evaluation as:

> *The process of selecting, collecting, and interpreting information for the purpose of keeping various audiences informed about a program.* (p. 8)

Walker and Wolf (1979) discuss evaluation as a process that:

> *Asks a project to not only assess how well it did in meeting project objectives, but also asks the project to develop a clear understanding of the nature of the project and its activities, and the relationship between project characteristics and outcomes.* (p. ii)

The requirement implicit to all these definitions of evaluations is the development of structured information which relates what a program intends to do, what a program actually does, and what results from those activities.

1. What Kinds of Evaluation can be Chosen?

Two different basic evaluation approaches are generally recognized. The formative evaluation approach focuses upon processes and procedures while the summative evaluation approach focuses upon outcomes and products. Neither of these approaches is discrete in that each contains elements of the other. Stufflebeam (1971) defines these terms as follows:

TYPES
OF
EVALUATION

> Process or Formative Evaluation: *That type of evaluation which provides periodic feedback to persons responsible for implementing plans and procedures. It has three objectives: 1) to detect or predict defects in the procedural design or its implementation stages; 2) to provide information for programmed decisions; and 3) to maintain a record of procedure as it occurs.*
>
> Product or Summative Evaluation: *That type of evaluation which measures and interprets attainments at the end of the product cycle and as often as necessary during the project term. It assesses the extent to which ends are being attained with respect to chance efforts within the system.* (pp. 353-355)

Fink and Kosecoff (1978) categorize evaluation as being either program improvement or program effectiveness oriented (p. 1). The two types are distinguished from each other in terms of how information is used rather than the types of information collected or when it is obtained. Improvement evaluations are typically applied to ongoing developing programs. Project staff seek information about activities within the program and about how well the program is accomplishing its objectives. Effectiveness evaluations are utilized by individuals external to the project to determine such things as: total impact on participants; comparative effect in relation to other programs; cost effectiveness; and degree of success in meeting project goals.

Essentially, evaluation is a tool to be utilized by those who make implementation decisions concerning programs and a tool that can be shaped to meet the particular needs of a variety of decision-makers. A program can be evaluated in a number of ways to meet the particular needs of the practitioner, the administrator, or the planner. Evaluations are often designed to provide information for some of the following purposes:

- To make decisions concerning continuation of a program;
- To make decisions concerning the level of funding of a program;
- To determine the effectiveness of a program;

- To provide information about ongoing project activities;
- To provide information about project's strengths and weaknesses;
- To provide information about project's progress towards meeting its goals and objectives;
- To determine program consistency from year to year;
- To identify unanticipated outcomes and side effects;
- To conceptualize the effects of the program;
- To provide an understanding of the program to the public or to other interested constituencies; and
- To provide comparison with other similar programs.

Once a mandate or a decision has been made to evaluate a program, determinations must be made concerning who will perform the evaluation and what activities will be emphasized. Both these decisions influence the procedures and the outcome of the evaluation process.

2. Who Will Evaluate?

The first decision involves the choice of an external evaluator or an internal evaluator. External evaluators have the advantages of an outside viewpoint, a lack of vested interest in the outcomes of the evaluation, and, often, technical experience in conducting evaluations. Internal evaluators have the advantages of understanding the nuances of the program, knowing the staff and the history of the project, and understanding any internal pressures which may have shaped programmatic procedures or decisions.

Often, a third party or external evaluator is specifically required by the project sponsor or funding agency. When an internal evaluator is an option, a project staff member is assigned to perform the evaluation or, in many cases, a staff member of a parent organization. For example, a federally funded project in a school district has the following three options:

- To contract with an external third party evaluator or evaluation team;
- To hire a project staff member whose duties would include evaluation; or
- To utilize the services of an existing school district research and evaluation department to do the evaluation

3. What Kind of Problems can Evaluation Involve?

Most of the major problems associated with conducting an evaluation involve access to accurate and complete information. This is particularly true when external or third party evaluations are conducted with a summative focus. Because many perceive evaluation as a threatening process which places their professional judgement or abilities on trial, it must be emphasized that the evaluation process can also be designed to provide necessary and positive information for effective program improvement.

Other problems involve the choice or design of appropriate test instruments. These choices will determine if the desired information can be developed for purposes of analysis, comparison, or dissemination. They should also reflect the needs of the appropriate audience(s) so that the evaluation report(s) will achieve their intended effect.

How to Conduct an Evaluation

Some or all of the following activities will occur in every evaluation. The emphasis or weight of each activity is adjusted according to the purposes or requirements of the particular evaluation. The evaluator must plan, conduct, or oversee activities in the following areas:

**STEPS
IN
EVALUATION**

- Clarification of project goals and objectives;
- Formulation of measurable evaluation questions;
- Determination of data sources;
- Specification of data collection procedures;
- Determination of evaluation timelines, staff, and budget requirements;
- Collection of evaluation information;
- Analysis and interpretation of data; and
- Reporting of evaluation findings and recommendations.

1. Clarification of Project Goals and Objectives

**DETERMINE
GOALS**

An evaluator's first task is to define and understand the program's goals and objectives in the context of the organization and in the context of any requirements imposed by a sponsor or funding agency. After defining program goals and objectives, the evaluator can determine which observed activities, information, or data would provide acceptable evidence of achievement of individual program objectives. Although an evaluator need not be involved in designating program goals and objectives, it is sometimes necessary for the purpose of clarification. Clarification of all components of an evaluation design is prerequisite to the design of an effective and useful evaluation.

2. Formulation of Measurable Evaluation Questions

IMPORTANCE OF ACCURATE QUESTIONING

Once project goals and objectives have been clearly defined and acceptable criteria for achievement have been established, the evaluator must formulate evaluation questions which address those criteria and which can be answered by measurable outcomes. The questions must provide the project director and others with sufficient, timely, necessary, and credible information about the project activities. These evaluation questions concern either process (the way the program does what it does) or product (what results from the program). For process questions, the evaluator most often deals with project staff and/or other participants concerning progress towards project goals and conformance of planned activities with actual activities. For product questions, the evaluator must also deal with agency administrators and the funding agency in order to determine and assess their specific informational needs. The evaluator is responsible for formulating specific evaluation questions, but those questions should be reviewed by project staff to insure that they are compatible with intended project goals and activities. This negotiating process serves to further clarify goals and objectives and to define the scope of the evaluation effort.

3. Determination of Data Sources

Once evaluation questions have been formulated, it is necessary to determine where answers to these questions must be obtained. Data sources for school-related projects typically include some of the following:

WHOM TO ASK

- Project director;
- Project staff;
- Participants or recipients of project services;
- Nonparticipants who were excluded or chose not to accept project services;
- Teachers;
- Employers;
- Parents;
- Students;
- Agency administrators;
- Members of advocacy groups;
- Members of the concerned public;
- Local officials;
- Laws, statutes, policy manuals;
- Minutes and memoranda;

- Organizational charts;
- Publications, texts, journals; and
- Project proposals and requests for proposals.

It is usually more informative to utilize multiple data sources for each evaluation question in order to validate and confirm information.

4. Specification of Data Collection Procedures

The nature of a data source and the number within a data source are indicators of the type of data collection procedures to be employed. The most common data collection procedures are:

- questionnaires;
- interviews;
- observation checklists;
- archival/document review; and
- tally sheets.

TOOLS FOR DATA GATHERING

a. *Questionnaires:* can be self-administered and are designed to provide structured responses or open-ended responses. The structured response questionnaire has the advantage of efficiency in handling large numbers of respondents and ease of analysis but it is more difficult to develop than an open-ended questionnaire because all possible answer options must be accounted for.

b. *Interviews:* can be conducted in person or by telephone. Usually an interview or topic guide is necessary to direct the interview to areas of interest and to structure data for subsequent analysis.

c. *Observation Checklists:* can be used during field site visits to provide an unobtrusive form of data collection with minimal disruption of ongoing activities. Checklists are often used in conjunction with an interview guide.

d. *Archival and Document Review:* of appropriate project proposals, RFP's and contracts is performed at least at the beginning of the evaluation process in order to place project goals and objectives and evaluation activities in a meaningful context. Another form of document review involving records such as minutes of meetings, memoranda, and other correspondence can be performed during the course of the project.

e. *Tally Sheets:* or log sheets are useful to obtain frequency counts on activities or participants. The subject matter can range from attendance data to use of work stations.

5. Determination of Evaluation Timelines, Budgets, and Staff Requirements

Once an evaluation design has been developed, a major administrative function of the evaluator involves the determination and assignment of staff members to produce timely, accurate, and useful information within a given budget figure. The usual process is to develop the evaluation design (Exhibit I) and a work plan (Exhibit II) to be used for working out all staffing and budget considerations. Five to ten percent of total project costs is a typical estimation for evaluating programs.

6. Collection of Evaluation Information

Data collection is usually a combined effort of the evaluator and project staff performing certain activities. Certain data collection, such as interviewing project or school district staff, students, parents, or other community members is usually most effectively performed by a third party external evaluator in order to maintain a high level of objectivity. Often, questionnaires, checklists, and tally sheets can be more efficiently collected by project staff as needed. Although archival and document review are performed by the evaluator, it is common for the project staff to obtain or comment on these documents for the external evaluator.

7. Analysis and Interpretation of Data

For the evaluation of most school projects, data analysis endeavors would involve relatively simple techniques such as calculating means, standard deviations, frequency counts, and coefficients of correlation. In some cases analysis of variance or analysis of covariance would be appropriate for the data collected. However, the data can be only as strong as the weakest link in the chain. The most sophisticated statistical technique cannot effectively compensate for a poor design or an inappropriate test.

Statistical analysis, in and of itself, cannot answer evaluation questions. Statistical outcomes must be interpreted in the context of the population studied, the sampling techniques and instruments utilized, the unanticipated outcomes, and, most importantly, common sense. Not all questions can be answered completely and some new questions usually arise from the evaluation of project activities.

8. Reporting of Evaluation Findings and Recommendations

Perhaps the most important characteristics of evaluation reports are their timelines and usefulness. Formative evaluations, by their very nature, require periodic or interim reports, usually on a monthly basis, in the form of written reports, memoranda, presentations at staff meetings, or verbal reports. Well documented monthly reports provide the basis for a comprehensive final report.

Summative evaluation reports are usually more detailed and are presented at the end of a project.

Most projects utilize both formative and summative evaluation approaches which are combined in the final report. A typical final report would contain the following components:

- introduction/background;
- project goals and objectives;
- evaluation plan;
- description of evaluation procedures;
- findings; and
- recommendations.

A final evaluation report may be written for inclusion as a section of the final project report, although it should also be comprehensive enough to stand alone.

9. Evaluation Instruments

Instrument selection must be based upon the evaluation question(s) to be answered. An evaluator has three choices in specifying an evaluation instrument:

- To use an existing instrument in whole or in part;
- To adapt or modify an existing instrument; or
- To develop a new instrument.

Each choice has advantages and disadvantages.

Because career education programs at the local or regional level are usually unique in terms of activities and procedures, many evaluation instruments must be developed for local program use. McCaslin et al (1979) have developed an excellent compendium of career education evaluation instruments for local use. McCaslin and Walker (1979) present a guide for improving locally developed career education measures that can be useful to local practitioners.

Any instrument chosen or developed must not only meet standards of reliability and validity but must also be corrected for any stereotyping or cultural bias. Reliability of an instrument is its ability to measure or obtain the same results consistently. Validity is the ability to measure or obtain accurate or pertinent information. The issues of sex stereotyping and cultural bias are primarily associated with validity but can affect reliability.

a. *Developing Local Instruments*

DEVELOPING INSTRUMENTS

Questionnaires, interview guides, and observation checklists can often be used interchangeably. (See Exhibits III, IV, and V for examples.) It is a matter of determining which procedure is best suited for which data source in terms of objectivity, accuracy, timeliness, money, efficiency, and unobtrusiveness.

The first step toward developing an evaluation instrument is to review the evaluation plan and to group evaluation questions by data source and by collection procedure (instrument type).

The type of instrument to be developed will depend on the kinds of evaluation questions and the data source. For example, a self-administered questionnaire might be used to obtain information from a large group of subjects such as students or teachers, but inappropriate for the superintendent of the school district in which you were evaluating a career education program. A personal interview would be more appropriate and more valuable.

Each evaluation question can give rise to several related questions on the data collection instruments, but it is best to use only one instrument type per data source. This helps to streamline the evaluation process by:

- keeping contact time with respondents to a reasonable level so as not to interfere with organizational routines; and
- easing the organization and analysis of data.

In nearly all cases, information needed can be obtained by a variety of instrument types. Any questions asked of a respondent either by interview or questionnaires or any items appearing on an observation checklist, tally sheet or archival review form, should be related to a particular evaluation question. Procedures for analyzing and interpreting these answers or items must be specified. There should be no instrument questions that cannot be used to answer any evaluation question. Conversely, each evaluation question specified for a given data source needs to appear on a data collection instrument.

10. Evaluation Activities

Every evaluation involves the following four major areas of activities:

- administrative activities
- data collection activities
- data analysis activities
- reporting activities

a. *Administrative Activities:*

Evaluation of career education programs deals with individuals and groups at various levels from community leaders to students in the classroom. These people have a myriad of individual, professional and institutional needs and perspectives within the institution of public education. These people are both the target population of the career education program and the measure of success of that program. Without the cooperation of these participants at every level the best evaluation design has little utility.

ADMINISTRATION FOR SMOOTH EVALUATION

Cooperation is enhanced when everyone is informed of project activities commensurate with their position within the program, when project goals, objectives and evaluation procedures are clearly defined and described, and when protocols within the school system evaluating its career education program are strictly followed.

Once an evaluator has entered a school system clear lines of communication must be established for all evaluation activities. The evaluator's primary contact is often the career education project director and all evaluation activities should be cleared through that position.

After protocol has been established, the next step is to determine and clearly state project goals and objectives. Using these goals and objectives, the evaluator must then develop a formal list of evaluation questions and an evaluation plan based upon the various available information sources.

The evaluation plan is a critical working document that must be agreed to by the evaluation staff and by the career education program staff. The evaluation plan should include a clearly defined procedure for modifications and how they are to be arranged.

After an evaluation plan has been agreed upon, the evaluator, the program director and other appropriate personnel must work out the logistics of evaluation activities including any presentations or other public relations activities. Finally, evaluation staffing, budgets and scheduling are all elements which the evaluator must manage as part of administrative activities.

b. *Data-Collecting Activities:*

Once the context of the evaluation has been determined and an evaluation plan has been agreed to, field operations must be planned and implemented. Field operations include:

DATA COLLECTION

- site visits for observations;
- interviews -- in person or by telephone;
- questionnaire administration;
- testing; and
- archival review.

In order to enhance scheduling and communication, all field activities should be recorded on a master schedule list and a confirmation with appropriate program personnel should be made within one week of an actual field visit for interview, observations, or administration of questionnaires or tests. Each scheduled activity should be checked off as it is accomplished and if there are any special notes or unusual circumstances about an activity, it should be documented in writing for future reference. Any anomalies observed by the evaluator on a site visit should be recorded. Where access to personnel, student, or other school records has been granted, guidelines for confidentiality and the ultimate disposition of any specific data recording sheets must be established.

c. *Data Analysis Activities:*

Plans for data analysis should be formulated at the same time that data sources and data collection instruments are being considered, and directed toward obtaining direct answers to the evaluation questions. The evaluation questions, the data collection plans and the data analysis procedures are all interdependent.

DATA ANALYSIS

In selecting a method of analysis the simplest technique to produce the appropriate information should be chosen. Simpler techniques are usually more readily understood by the project staff and by the public, are less subject to misinterpretation or over-interpretation, and are easier to report directly. Theoretical or esoteric explanations of what might be happening in the school district are less important than clear explanations of results.

Another important consideration in selecting an analysis technique is that the procedure be appropriate for the type of data collected. All statistical routines have underlying assumptions which must be satisfied if the statistical outcomes and subsequent interpretations are to be of value. The simplest and most common statistics used are descriptive statistics and include:

- mean or media;

- standard deviation or interquartile range;
- coefficient of correlation;
- range;
- sample size; and
- frequency counts or percentages.

More sophisticated procedures include:

- regression analysis;
- analysis of variance/covariance
- multivariate analysis; and
- chi-square analysis.

Predetermined success criteria for each evaluation question and statistical analysis of each question will serve to identify program merit. These success criteria can be established before data are collected. An important but often overlooked consideration in the evaluation design are the questions of external and internal validity. External validity addresses the question of "How generalizable are the results to other school districts, other content areas, or future school years?" Internal validity deals with the question of "How accurate a description of the sample and procedures used are the current results?"

d. *Reporting Activities:*

PRESENTING RESULTS

Once findings and recommendations have been arrived at, the job of reporting the results of the evaluation becomes the major activity. The quality of this product is most important for both the evaluator and for the career education project being evaluated. The most important characteristic of the evaluation report is its usefulness to its intended audience, such as to the school district, in maintaining a high quality education program. The evaluation report is a self-contained report, a public document and a record of the evaluation. The writing of an effective evaluation final report is greatly eased when clearly stated goals and objectives and well written interim reports are available.

An evaluation report should state clearly

- what was done;
- how it was done;
- why it was done; and
- what it means.

A report that is merely a compendium of numbers or other results without explanation or context is useless toward answering some of the more global questions surrounding career education programs. Explicit findings and related recommendations are necessary to any evaluation report if it is to be meaningful to the program evaluated and if it is to describe the human efforts that have been observed, measured, and evaluated.

An evaluation report would typically include the following sections:

- An introduction and background of the evaluation including salient program features, scope of the evaluation, and goals and objectives;
- A discussion of the design of the evaluation plan, including evaluation questions, population, sampling procedures, and any technical limitations;
- A description of data supplies, data collection instruments, special data collection techniques, and highlights of field activities, including any limitations;
- A presentation of methods used to analyze data and other information;
- A discussion of results of each analysis and its limitations;
- A presentation of findings and recommendations for each evaluation question, either individually or in appropriate combinations;
- A description of administrative background, including staff, schedules, and other relevant considerations; and
- A clear presentation of sufficient data and exhibits to enhance the meaningfulness of the narrative section of the report.

Additionally, a report should contain a one or two page summary of the entire evaluation report to provide an executive summary which is easy to read but is detailed enough to communicate the essence of the evaluation. This quick synopsis is often sufficient for the purposes of a busy executive. Finally, it is not uncommon for evaluators to utilize the services of professional writers for preparing a final evaluation report. The most fascinating findings are of no value if they are not effectively communicated.

EXHIBIT I

PRELIMINARY EVALUATION PLAN - CAREER EDUCATION

GOALS/OBJECTIVES

GOAL I

To develop a reality-bound career exploration program for middle school and junior high school students with actual "hands-on" experiences in the exploratory sense in the various occupational clusters.

Objective I-1

To utilize the resources of a regional vocational technical school as a primary field trip center for exploratory "hands-on" experiences for students in grades 6-9.

Evaluation Questions I-1:	DATA COLLECTION SOURCES	DATA COLLECTION PROCEDURES	DATA COLLECTION SCHEDULE
A. How extensively are field trips utilized?	• shop teachers	- Interview (sample)	- Month 4
	• sending school teachers	- Interview (sample)	- Month 4
	• counselors	- Interview (all)	- Month 8
B. How effective are field trips in helping students gain meaningful exploration experiences for the world of work?	• shop teachers	- Interview (sample) - Questionnaire	- Month 2,4 - Month 8
	• sending school teachers	- Interview (sample) - Questionnaire	- Month 2,4 - Month 8
	• sending school teachers	- Interview	- Month 6
	• students	- Interview (sample) - Questionnaire	- Month 4 - Month 8
C. Are curriculum infusion techniques used in conjunction with field trip activities?	• sending school teachers	- Interview (sample) - Site Observation	- Month 2,4 - Ongoing
	• shop teachers	- Interview (sample)	- Month 2,4

EXHIBIT II

WORKPLAN

A. Start-up Activities

1. Meet with director of project or project staff to:
    a. explain mutual roles
    b. define mutual responsibilities
    c. describe mutual expectations
    d. identify significant issues or circumstances
2. Gather and examine pertinent records, proposals, reports and other available background material.

B. Evaluation Design Activities

1. Define or restate program goals or objectives.
2. Set up standards for evidence of merit associated with each goal or objective.
3. Formulate specific evaluation questions to determine relative evidence of merit for each goal or objective.
4. Identify specific data sources.
5. Choose appropriate data collection techniques for each evaluation question and for each data source.
6. Construct timelines for data collection.
7. Design or choose data collection instruments.
8. Assign responsibility and timeline for data collection activities.

C. Data Collection Activities

1. Train data collectors if necessary.
2. Contact data sources.
3. Schedule data collection activities.
4. Collect data.
5. Manage data.

D. Data Analysis and Reporting Activities

1. Re-sort data in terms of evaluation questions.
2. Tabulate data by source.
3. Integrate data.
4. Synthesize findings.

Continued...

Exhibit II (Continued)

5. Analyze findings.
6. Describe the program.
7. Describe evaluation activities.
8. Presentation and analysis of findings.
9. Presentation of conclusions and/or recommendations.

EXHIBIT III

CAREER EDUCATION SURVEY

VOCATIONAL SHOP TEACHERS

1. Have you hosted students on field trips to your shop during this school year?

   A. Yes ___
   B. No ___

2. If "yes" to Question #1, how many different groups visited your shop?

   A. 0-3 ___
   B. 4-6 ___
   C. 7-10 ___
   D. More than 10 ___

3. If "yes" to Question #1, how many students total have visited your shop?

   A. Less than 25 ___
   B. 26-50 ___ ___
   C. 51-75 ___ ___
   D. More than 75 ___

4. Do you feel that the number of visits was:

   A. Too many ___
   B. Too Few ___
   C. Appropriate ___
   D. No Opinion ___

5. Do you feel that the size of the groups was:

   A. Too large ___
   B. Too small ___
   C. Appropriate ___
   D. No Opinion ___

6. Do you feel that the field trips were a valuable experience for students?

   1 2 3 4 5
   useless very valuable

7. To what extent do you feel students increased their understanding of occupational requirements as a result of their field trip to your shop?

   A. A great deal ___
   B. Somewhat ___
   C. A little ___
   D. Not at all ___

8. How often did the sending school teachers contact you for information before the field trip?

   A. Always ___
   B. Usually ___
   C. Sometimes ___
   D. Never ___

9. After the field trip?

   A. Always ___
   B. Usually ___
   C. Sometimes ___
   D. Never ___

EXHIBIT IV

CAREER EDUCATION INTERVIEW GUIDE

COUNSELORS

*1.

2.

3.

4. Student attitudes towards field trips.
   Probes:
   - A. How many students told you about field trips?
   - B. Was their attitude positive or negative?
   - C. Were any specific field trip learning experiences related to you you by students?
   - D. Which ones -- please describe:
   - E. Are there any other observations that you have made about the students' field trips?
   - F. Are there any ways you see to improve the effectiveness of the field trips?

5.

---

*Questions 1, 2, 3, and 5 pertain to other goals and objectives within the total career education program. Question 4 relates to Goal I, the example chosen.

EXHIBIT V

CAREER EDUCATION SITE VISIT FORM

Observer ____________________________ Date __________

School ______________ Teacher ____________ Grade _____

Class Subject __________________ # of Students __________

If vocational school -- shop area ______________________

1. Are career education materials available/visible? Yes ___ No ___

Check those items observed:

A. ___ wall posters

B. ___ bulletin board displays

C. ___ work stations

D. ___ library/media materials

E. ___ student texts

F. ___ student handouts

G. ___ community resource person

H. ___ Other: ____________

COMMENTS:

2. Were class activities related to a field trip? Yes ___ No ___

A. If yes, were activities Pre ___ or Post ___ field trip?

B. Were teacher class plans available? Yes ___ No ___

COMMENTS:

3. Level of involvement of students.

High ____ Average ____ Low ____

COMMENTS:

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APPENDIX A

CAREER DEVELOPMENT CONCEPTS

CAREER DEVELOPMENT CONCEPTS*

1. An understanding and acceptance of self is important throughout life.
2. Persons need to be recognized as having dignity and worth.
3. Occupations exist for a purpose.
4. There is a wide variety of careers which may be classified in several ways.
5. Work means different things to different people.
6. Education and work are interrelated.
7. Individuals differ in their interests, abilities, attitudes and values.
8. Occupational supply and demand have an impact on career planning.
9. Job specialization creates interdependency.
10. Environment and individual potential interact to influence career development.
11. Occupations and lifestyles are interrelated.
12. Individuals can learn to perform adequately in a variety of occupations.
13. Career development requires a continuous and sequential series of choices.
14. Various groups and institutions influence the nature and structure of work.
15. Individuals are responsible for their career planning.
16. Job characteristics and individuals must be flexible in a changing society.

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*USOE/Career Education, 1972.